A Report to Educators

ON

TEACHING FILMS SURVEY

Harcourt, Brace and Company · *Harper & Brothers*

Henry Holt and Company · *Houghton Mifflin Company*

The Macmillan Company · *Scholastic Magazines*

Scott, Foresman and Company

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Conducted by

HARCOURT, BRACE AND COMPANY · HARPER & BROTHERS

HENRY HOLT AND COMPANY · HOUGHTON MIFFLIN COMPANY

THE MACMILLAN COMPANY · SCHOLASTIC MAGAZINES

SCOTT, FORESMAN AND COMPANY

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* * * *Explanatory Note* * * *

LATE IN 1945 several thousand school administrators and teachers coöperated with the seven publishers named on the title page of this booklet by answering elaborate motion-picture questionnaires prepared by Carroll Y. Belknap, consultant in management research.

The purpose of the study to which these questionnaires contributed was succinctly stated on the printed questionnaires themselves: ". . . to evaluate the effectiveness of the visual aids now available and to explore more fully the possibilities of correlation between film production and textbook publication. The subjects of the study are of fundamental importance to American education. Thus, in the truest sense, this study is being conducted for the benefit of the schools themselves, as well as for that of the sponsoring publishers."

We here tell you the story of the study of certain aspects of audio-visual education made by Mr. Belknap for our group of seven publishers and of experimental work done by us in coöperation with the Motion Picture Association. American education contributed to both. We are, therefore, making available to the thousands of teachers and school administrators who helped in the survey this brief account of our activities together with a summary of results.

Upon application, single copies of this document will be sent gratis to interested persons until the edition is exhausted.

THE COMMITTEE

* * * *Acknowledgments* * * *

We are indebted to one of our group, Philip A. Knowlton, for the preparation of copy for this brochure. Owing to the fact, however, that one-man authorship of so extensive and involved a report as this is impossible if all members of a committee are properly to discharge their critical functions, Knowlton prefers not to accept title-page recognition as author.

Ronald Murray of Houghton Mifflin Company was responsible for designing the typographical and other physical features of this booklet, which has been manufactured under the auspices of Harper & Brothers.

The Committee

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A Report to Educators

ON

TEACHING FILMS

SURVEY

1

A Coöperative Investigation

The Problem

"WHAT ARE you people doing about classroom films? No textbook is really complete unless it has a good set of films to go along with it. I think you publishers are dodging the issue."

"Books without films are old-fashioned. After our recent wartime experiences, it is short-sighted and indefensible for producers of instructional materials such as textbooks to bar themselves from film production."

Comments such as the above have been made over and over again in recent years to publishers' representatives.[1] Today in some parts of the country they are almost a routine part of any bookman's experience.

During and immediately after World War II, the wide use of government-subsidized films in the wartime training programs of the Army and Navy, and the unquestionable practicality of films that teach how to kill without being killed, were cited by motion-picture enthusiasts as arguments for commercially produced classroom teaching films on subjects distinctly less vital than life versus death.

[1] For an expression of this point of view, which would be more effective if it contained fewer irresponsible statements, see an article entitled "Visual Aids—Bountiful Promise, Tragic Trickle," by Joseph M. Tewinkle in *The Clearing House* for May 1946, in which schoolbook publishers are taken to task for their failure up to that time to do what Mr. Tewinkle credits them with being preëminently equipped to do. And so sedate a paper as *The Elementary School Journal* published in January 1948 an article (by A. W. Vandermeer) bearing the title "From Textbook to Movie to Television"!

Textbook publishers have a natural curiosity regarding anything which affects the teaching program in the schools. More than that, most of them are ready and eager to assume responsibility for any and all types of teaching materials which they believe they are competent to produce and to produce profitably. They know that they can carry on their business successfully only if they see the educational scene as a whole and make their product fit that scene. Then what about the war challenge of classroom films? Would their widespread use demand drastic modifications in textbooks? Should films and textbooks be offered to schools in a single package as essential and integrated tools of instruction? Should the textbook publisher attempt to contribute to the making of films? What, if anything, does he have to contribute?

Three years ago these and similar questions were in the minds of all publishers of schoolbooks. Visual aids, and particularly classroom films, were as common a topic of conversation among textbook publishers as among educators. After much discussion, six (eventually seven) publishers agreed to subsidize a thorough and comprehensive investigation of the problem, with particular reference to its relationship to the textbook publisher and his educational responsibilities.

How We Met the Problem

In the spring of 1945, six of the seven publishers whose names appear in alphabetical order on the title page of this document, after preliminary caucuses, met at Princeton, New Jersey, to discuss the advisability of financing a formal survey of teaching films and motion-picture production.[2] (The seventh publisher came

[2] Despite the present and future importance, recognized by all, of film strips or slide films, and the past importance of silent motion pictures, the inquiry was confined largely to sound motion pictures. Film strips are so inexpensive that it was felt that an elaborate investigation of the economics of film-strip production would be unnecessary. The completed survey did, to be sure, devote a brief Appendix to this topic, but the findings appear to us less conclusive and less valuable than those relating to sound motion pictures, and we, therefore, consider it unnecessary to summarize them in this document. By mutual consent, we agreed in an early stage of the investigation largely to disregard silent motion pictures. Despite their incontrovertible appropriateness in certain situations where sound functions only slightly, the prejudice against silent motion pictures is so widespread

into the fold a couple of months later.) Present at the organization meeting, besides executives of the publishing houses involved and legal counsel, were representatives of the motion-picture producing personnel of the Army, Navy, and U. S. Office of Education, of the American Council on Education's Commission on Motion Pictures, and of certain related industries, all, of course, attending the meeting in a personal rather than an official capacity.

The wide scope of the proposed survey can best be indicated by the following extensive quotation from the minutes of the organization meeting. To be sure, some of the proposed subjects of inquiry were inevitably slighted. For example, when, at about the midpoint of the survey, it began to be apparent that the taking of immediate steps to set up the machinery of joint film production would not be recommended, it was only natural that some of the more intimate financial and administrative details of such coöperative activity should be disregarded as, for the present at least, not pertinent. Our readers, however, will perhaps be interested in this full and unedited statement of objectives.

I. The report of the survey director should include a statement regarding the strengths and weaknesses of school films and other visual material now available with specific suggestions as to where and how the textbook publisher might help to improve their teaching quality. As the basis for such a statement, the survey director should probably review an adequate cross section of available films, get teachers' reactions to significant titles, and, at appropriate times, call the publishers together to view certain key pictures, compare their merits, and discuss instructional features and devices. In this connection, the surveyor's report should presumably give factual information on such questions as the following, with suggestions of specific films to illustrate every generalization:

1. How many fairly satisfactory classroom films are now available and in what fields?
2. Of the total, how many are eminently satisfactory?
3. What are the chief weaknesses of the films which are not eminently satisfactory?

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that they must be regarded as passé. Part of the glamor of audio-visual education is its newness, and the older forms of something which is prized (in part) for its newness just don't appeal.

4. What knowledge and insight might textbook publishers contribute that would correct these weaknesses?
5. What can textbook authors contribute, and what would be their remuneration?
6. What proportion of the available films are for elementary grades, junior high-school grades, senior high-school grades, college?
7. How many classroom films have been produced in the past ten years? In the past five years? In the past year?
8. Of the films now widely used in schools, how many are commercially sponsored? Are they satisfactory? Will the use of sponsored films increase or decrease?
9. To what extent can publishers' sales organizations contribute to the production of more effective films?

II. The report of the director of the survey should review present and prospective use of visual aids in the schools, possible trends, and equipment costs and technical improvements. This should not be solely a paper study. It should be based on actual contact with a considerable cross section of school people, and acquaintance with manufacturers and their production and promotional plans. Following are some of the questions which arise in this connection:

1. For what specific school courses and at what level does there seem to be the greatest demand for new films?
2. How much is at present spent by schools for visual-aid material? Of the total, how much is for films? How much for projection equipment?
3. What do informed groups expect visual-aid expenditures to be ten years hence? Five years hence?
4. How many 16mm projectors are there now in the schools?
5. Is a licensed operator required for 16mm projectors? If so, in which states?
6. How will projection equipment change during the next five years in cost? In simplicity of operation? In availability for use in only semidarkened rooms?
7. What are the 500 school systems that have the largest visual-aid budgets? How are these systems distributed geographically?
8. What percentage of these 500 systems now rent films? How many hope eventually to be able to own films?
9. What changes are likely to take place in renting procedure? Will the changes make owning films more or less desirable?
10. Why don't more schools own films? How important is price in

renting versus owning? How important is the problem of care or cataloguing?

11. To what extent are teachers being trained for the use of educational films?
12. Will improved teaching techniques in the use of teaching films tend to make owning films more or less desirable? How strong will this influence be?
13. What public pressures are there which will tend to increase expenditures for films?
14. What promotional campaigns do manufacturers plan for the increased use of films? Will these campaigns be directed at the public or the schools?
15. What is the public attitude toward spending money for equipment and films? Is it more or less willing to spend money for visual aids than for salaries? For books? For buildings? For laboratory equipment?
16. Of needed films, what specific films might a group of publishers coöperate in making and distributing?

III. The report of the director of the survey should include a detailed statement regarding Army, Navy, U. S. Office of Education, and industrial procedures in film production and use, and also a study of film producers themselves to find out what they can, and what they think they can, contribute to any publishers' production unit. The survey director should find out what instructional films are available and what are needed, and make recommendations to the survey group with respect to contributions the publishers can make through their editorial staffs and the machinery by which they can make such contributions. It will then be left to the publishers to decide whether or not it will be practicable for the several companies to contribute such editorial help.

1. Assuming that the findings of the survey director encourage the production of classroom films by a group of textbook publishers, what kind of organization should be established for this purpose?
2. What relation should such an organization have to film producers?
3. What relation should such an organization have to the editorial departments of the textbook publishers?
4. How much and what kind of professional educational support can be enlisted to encourage the production of classroom films by a group of textbook publishers?

IV. The report of the director of the survey should review present selling and distribution methods and should make recommendations as to how textbook publishers might contribute toward more effective and less expensive selling procedures.

1. Is it essential that a separate selling force be set up for the promotion of films for school use?
2. Are films at present purchased without demonstrations?
3. Can films be sold on the basis of descriptive literature, film strips, and approval loans?
4. What is required in the way of printed material, manuals, etc., to supplement classroom films?
5. Who are the key persons in school systems for the actual purchase of films? Or for their rental? Or for the building of film libraries?

V. The director of the survey may recommend for or against the creation of an organization for the production of educational motion pictures and, in any event, will supply several budgets which would apply to such an organization if set up. These budgets should include production costs, administrative and selling expenses, and estimated sales. These considerations should presumably provide answers to the following questions:

1. What would be required in the way of personnel for a producing and distributing film organization?
2. At what prices could films and film strips sell?
3. What is a reasonable expectation of sale for any one classroom film in terms of number of prints?
4. What specific program of film production, including specific films and the fields in which they should be produced, would be desirable?
5. At what rate should a possible production organization attempt to produce and market films?
6. For each of the budgets proposed, what would be a conservative estimate as to operating figures over a period of five years? Ten years?

VI. The survey may be conducted in such a manner as to enable participating publishers to determine how effectively they can work together on a film project. This would give them the actual experience of working with producers, script writers, and subject-matter specialists.

The result of this meeting was the formation of an enterprise which styled itself Teaching Films Survey. Unincorporated, it was financed with modest grants of equal size from the seven participating publishing houses and managed by an Executive Committee consisting of one representative from each.[3] Clearly indicative of its amateur character are two facts: (1) that it spent less than the initial grant, and (2) that it recognized the essential incompleteness of any piece of educational research unless the results could be reported to the educators whose help made the inquiry possible.

We Delegate Our Task to an Analyst

The committee in charge of T.F.S.[4] promptly decided that it would be advisable to employ an expert business analyst to serve as the central figure in the conduct of the proposed survey. We recognized the need for greater expertness and experience in the handling of such inquiries than any one of us himself possessed, and unity of direction seemed essential. A professional business and market analyst, accustomed to advising corporations of all kinds on problems of all kinds, would know how to get the facts and interpret them realistically.[5] Much of the work would be done in and by his own organization, but we expected to coöperate, perhaps extensively and laboriously. In fact, we expected him, once employed, in large part to direct our activities, though we recognized that aspects of the inquiry might arise for which he would not be directly responsible.

Great care was exercised in the choice of an analyst. All seven of us are convinced that our final selection was a happy one.

[3] Dudley Meek, Harcourt, Brace and Company, Secretary; Richard M. Pearson, Harper & Brothers; Gilbert Loveland, Henry Holt and Company; William E. Spaulding, Houghton Mifflin Company, Chairman; P. A. Knowlton, The Macmillan Company, Treasurer; M. R. Robinson, Scholastic Magazines; Robert C. McNamara, Scott, Foresman and Company.

[4] The designation of organizations by initials being both fashionable and economical, we soon accustomed ourselves to avoiding the slightly bumptious Teaching Films Survey and used the initials T.F.S.

[5] The report of a leading advertising agency, which found the production of informative films to be an effective form of institutional advertising, anticipated some of the more general conclusions of our survey but was not at the time a matter of public record.

Carroll Y. Belknap, who conducted the survey for us, is not only a successful business analyst of long and varied experience, but a former teacher. Furthermore, both as an educator and as an adviser to businessmen, he has dealt with instructional films for many years.

If this inquiry was worth making at all, it deserved to be made sympathetically. If our investigator had any initial bias, it should be a mild one and on the positive side, but we wanted a man who could and would forget his initial predilections and follow where facts led him. If Mr. Belknap was prejudiced at the outset of the inquiry, it was in a direction favorable to a recommendation to his clients to attempt the production of educational motion pictures.[6] The fact that his final recommendations advised against such activity for the present is a tribute to the objectivity of his analysis. Neither his final report nor our brief summary of his findings should be interpreted as indicative of the slightest degree of prejudice on his part or on ours against teaching films or audio-visual education in general.

His report gives the publishers neither a red light nor a green light, but rather a caution signal. His skillful projection into the future of data assembled late in 1945 indicates the active possibility, even the probability, that conditions will become increasingly favorable to the production and distribution of educational films. Had Belknap predicted otherwise, our act in publicizing his report might properly have been regarded as inimical to audio-visual education. As it is, his prediction of considerable improvement in the audio-visual field within the next three to eight years makes his report as a whole an encouraging rather than a discouraging one.

Belknap Conducts the Survey

Arrangements were made with Belknap in the late summer of 1945 to conduct this survey. Two years elapsed before his report was completed. Neither his organization nor our several organizations, of course, were in a position to devote a major portion

[6] Says Belknap: "A beautiful understatement. At the start I was strongly biased in that direction. That was the reason I tackled the job."

of their time to this inquiry. The raw materials of the report were for the most part assembled in the concluding months of the year 1945, though the interviewing of key persons in educational-film production continued well into 1946. Interpretation of the voluminous data required many months of labor, and the formulation of the report itself, even in its final and greatly condensed form equivalent in size to a large book, occupied Belknap and his aides for several months in 1947. Meanwhile Belknap's publisher clients busied themselves with other aspects of this film inquiry.

The main sources of data assembled for and interpreted in the Belknap report were, as stated by him, the following:

1. Questionnaire replies from superintendents, assistant superintendents, visual-education directors, principals, elementary-school teachers, and high-school teachers in 424 of the 501 largest public-school systems in the country. These questionnaires were presented by the salesmen of the sponsoring publishers and were either filled in by the salesmen during personal interviews or left with the school personnel for later completion.
2. One hundred thirty-seven personal interviews by senior members of my staff, with visual-education directors in major cities, motion-picture producers, projector manufacturers, film distributors, heads of film-lending libraries, and other key persons in this field. All major producers of so-called educational films and all leading projector manufacturers were interviewed. The visual-education directors selected for personal interviewing were representative of the ablest such people in the public-school systems. These interviews were reported fully. The records of these interviews total nearly 1,000,000 words.
3. Approximately 120 other interviews with persons who for various reasons sought interviews with me. Thirty-six of these interviews produced information that was recorded.
4. A thorough review of literature bearing on visual education and published in the past ten years.
5. "Evaluation reports" made by members of the staffs of the sponsoring publishers after reviewing a number of the most popular films now available for school use.

There was constant collaboration between the Belknap organization and the publisher group. Practically at the outset, it was

evident that extensive use would be made of questionnaires, which would have to be personally administered, so to speak, if we were to hope for a large percentage of returns. Several elaborate questionnaires, varying in content according to the educational groups for which they were designed, were formulated by the Belknap organization, criticized in detail by the publishers, revised, and taken into the schools by the publishers' representatives, some hundreds in number, available for this large and time-consuming task.

The response of teachers and school officials to personal pleas for help was most gratifying. Virtually no one who was approached refused to give information,[7] and the discrepancy between the 501 largest public-school systems, estimated to be roughly equivalent to those serving communities of more than 20,000 population as of the end of the year 1945, and the 424 systems actually reported on is to be accounted for not by refusal of seventy-seven school systems to coöperate, but by the inability of the publishers' representatives to reach seventy-seven of the school systems least accessible to them within the time limits agreed upon. Our preparation and distribution of this booklet is, in fact, motivated by our desire to express our gratitude for this valuable and much needed coöperation.

Paralleling the second of the five types of source data mentioned by Belknap were numerous interviews with leaders in visual or audio-visual education conducted voluntarily and spontaneously by the several publishers. The results of these are not incorporated in the Belknap report; but every participating publisher has had a sufficient number of such interviews to feel that he has first-hand verification of Belknap's reported results, though Belknap's interviews were infinitely more comprehensive and systematic than ours.

[7] Except for the fact that it was difficult or impossible, in a majority of cases, for the publishers' salesmen who administered the questionnaires to get from superintendents or V.E. directors precise answers to questions relating to present and future expenditures, either in the aggregate or broken down into major categories. To some respondents, such questions seemed intrusive. Possibly they were. Belknap attributes the relatively low percentage of responses, in the case of such questions, to the inexperience of salesmen-turned-researchers. We wonder. Perhaps our salesmen were lucky to get off with a courteous "Sorry, confidential" in place of a more candid and not entirely unjustified "None of your business."

We also interviewed a considerable number of persons who desired to capitalize, either for themselves or for organizations which they represented, on the results of our survey should it give us a green light. A goodly number of the interviewers, or interviewees according to the point of view, were returning veterans who had had experience in the making or use of training films in the armed services. Unfortunately, we have had nothing to offer them, but we were glad to talk with them and learned not a little from them. Other interviews were with the heads or near-heads of small but experienced, indeed expert, organizations devoted to the production of nonamusement films. In the aggregate we feel that we learned a good deal from these men.

Concerning Belknap's fifth item in his list of sources of data, namely formal and systematic film evaluation, a brief explanation is in order. Our study of a small number of existing films, chosen from the thousands available because of their comparative popularity as shown by the questionnaire, was undertaken for two quite different purposes. First of all, of course, we wanted to find out how good these films are, with a view to estimating the degree of probability that we could equal or improve upon the techniques employed in their production. Secondly, less obviously, but just as really, we were analyzing ourselves.

An elaborate evaluation form was prepared by Belknap, discussed, revised, and mimeographed. Each contributing publisher had a number of his editors view several films, the same few films being reviewed by all the publisher groups. The evaluations were in turn evaluated, and we publishers were duly sorted into sheep who could evaluate films intelligently and goats who could not. More than that, the evaluations of individual editors—all the evaluations from all the publishers on any film—were summarized and appraised by carefully selected senior editors within the publishing organizations. These evaluations were in turn evaluated by Belknap.

Some evaluators of evaluations received hearty commendation from Belknap. About most, he was discreetly silent. Such are the relations between a business analyst and his clients that, whereas Belknap has figuratively taken off his hat to two or three of our number, the other twenty or so of our editors participating in

this experiment are blissfully, perhaps mercifully, ignorant of how they rate with Belknap either as judges of films or as judges of judges of films. In a word, we've all been guinea pigs, and the purpose of the experiment was the light that it tended to throw upon our aptitude or lack of aptitude for raising the standard, however high or low, of educational films in the event that other considerations should favor our going into the film business.

For many months Belknap was engaged in the fascinating process of making figures talk. Despite the fact that he deliberately confines his statistical techniques to simple ones that can be understood by business clients, in short, doesn't bother with the impedimenta of a dissertation, Belknap's report is impressive. We wish that it were feasible to publish it in its entirety. In the opinion, however, of those of us whose business it is to predict markets, the distribution of such a book would be confined to a few score or at the most a few hundred. Consequently, our obvious course is to summarize as we shall do later in this document.

But with all its skill in extracting from data meanings that were not superficially apparent but were convincing when Belknap revealed them, the Belknap organization on one occasion needed help. The responses to the questionnaires, not unnaturally, were sometimes, because of a teacher's haste in replying, hard to interpret. So at the one point where he felt that our facilities were superior to his, Belknap called us in.

We refer to the summarization of answers to the questions about "stumbling blocks," or hard spots, in teaching. Twenty-seven hundred twenty teachers,[8] who told what the chief hard spots are in their classroom experience, reported their findings in ways so various, involving so many short cuts, and sometimes so puzzling except to the initiate, that Belknap's staff could not cope with the returns on questions of this type. Belknap, an ex-teacher, could have done so had he as head of a business-analysis organization been in a position to devote a wholly unreasonable amount

[8] Superintendents, principals, and V.E. directors brought the total number of school people answering the questionnaires (plural, because different forms of questionnaire were submitted to different groups) to between four and five thousand.

of time to the task. Instead, he appealed to his clients. We divided up the job. And what a job it was!

Make no mistake. We are grateful for these answers. Properly interpreted and carefully summarized, they are not only an extremely revealing indication of those minute and detailed aspects of subjects which most require visual-aid treatment if susceptible to such treatment, but—and we insist that we did not think of this in advance—they are a distinct editorial asset for book publishers. Tabulations of responses on this question of hard spots or stumbling blocks have been made in all major fields of instruction at elementary- and high-school levels. The Belknap staff transferred the answers on these subjects to index cards, which were passed on to the publishers for interpretation, organization, and tabulation. The number of cards for each large or composite subject area approximated two thousand. Imagine a publisher's gratification over receipt of information as to what hundreds of teachers, representing almost every state in the Union and quite unaware that their pronouncements can be applied to textbook making, think are the really tough spots in the teaching of arithmetic! Put yourself in the place of a social-studies author or editor who suspects but isn't sure, that certain aspects of history are easy and others hard, and who then finds out that he is right! Some of the incidental, unintentional, almost accidental by-products of this study are decidedly worth what it cost.[9]

We are trying to give you a fairly chronological account of a complicated piece of research. If we are to stick to chronology it

[9] One general tendency in teachers' reporting of difficult spots in their work—facts or principles which they find it hard to teach—is indeed striking. We refer to the almost total preoccupation of classroom teachers with factual subject matter and specific skills as contrasted with pupil attitudes. Teachers are still worrying about how to teach countless items of subject matter that have always been taught and will always have to be taught as long as subject matter remains in the schools. Practically never among the thousands of reported "stumbling blocks" were mentioned such difficult points as to how to set up this or that type of project, how to teach details of an old-fashioned subject by a newfangled method. When it is obvious from the form of a questionnaire that answers will be regarded as traditional or progressive, teachers hesitate to answer *any* question in a way which they feel may be regarded as indicative of a traditional or conservative educational philosophy. When, on the other hand, there is no indication that the Progressive-Essentialist controversy has any bearing on their answers or vice versa, an overwhelming majority of public-school teachers betray a sense of responsibility not only for teaching children but for teaching children subject matter.

will be necessary to violate logic, or vice versa; for while Belknap was busy interpreting his data and we were occasionally helping him, we became involved in actual experience with picture making under entirely different auspices. In short, we entered into a coöperative arrangement with the Motion Picture Association.

Most of our work with that organization was done while the Belknap report was still in the making. The two projects were carried on simultaneously from the spring of 1946 until the conclusion or near-conclusion of both late in 1947, each to a large extent independently of the other. It seems best to shift at this point to a summary of our activities in picture making.

2

A Coöperative Experiment

Arthur Mayer, *Deus ex Machina*

REPEATEDLY AT the organization meeting in June 1945, and thereafter, the hope had been expressed that enough money might be left in our treasury after the completion of the survey to permit us to experiment with at least the initial stages of film production. We desired experience. Individually, most of us craved what we looked upon as an intellectual adventure. Besides that, we were particularly anxious to test our theories as to the value or lack of value of pooled or collective editorial judgment in film production.

As the months slipped by, it seemed more and more unlikely that the setup under which we were working would permit any practical work with picture making. Our appropriation, though adequate for a carefully conducted survey, was wholly inadequate for actual film production. At best, it seemed likely that two or three of the more movie-struck among us might make, exchange, compare, and criticize hypothetical plans for pictures that would never materialize. Some of us, finding ourselves in California on various errands for our several companies, took advantage of our presence there to visit Hollywood,[10] where each, with his prior contacts or letters of introduction, met his share of the big-shots, visited studios, and learned his way around. But all this was a little pathetic. We weren't getting anywhere,

[10] Despite the fact that the chief centers of production of nonamusement films are in the Middle West and East.

we'd never make a picture, and we knew it. That is, we thought we knew it.

Arthur Mayer of New York, public-spirited theater owner and all-round motion-picture savant, heard of our inquiry and looked us up. Deeply interested in teaching films, he was impressed with what seemed to him to be the realism of the study that we were making. Too often, the development of audio-visual education has been arrested by the single-mindedness of some of its advocates who make of it if not a religion at least a panacea. Mr. Mayer apparently liked the balanced character of our inquiry. He realized that nobody was trying to prove anything and that we were seeking knowledge rather than justification for preconceived ideas. We were interested and open-minded without being advocates or skeptics.

For more than a decade the Motion Picture Association had been interested in education. It had inaugurated and maintained the film service known as Teaching Film Custodians. It had cooperated with the American Council on Education in maintaining a Commission on Motion Pictures, a committee of nine educational leaders headed by Dr. Mark May of Yale, which serves as a clearing house for educational projects of the Association.[11] Early in 1946, at about the time when we and Mayer were getting acquainted, the Association, under the progressive leadership of its president, Eric Johnston, was contemplating the production of a small number of experimental films as a service to education.

The Association was looking for someone, well versed in film production and having access to persons of technical competence in education, to conduct its experiment. By that time Mr. Mayer's wartime services to the Army and to the Red Cross were terminated or nearly so, and he was in a position to donate his time to the Association's project, which interested him and which he felt to have social value. Also at that time, we publishers had a weather eye out for any arrangement that would permit us to participate in at least the planning stages of actual film production. What more natural than for the three to gravitate together?

[11] Members: Mark A. May, Wallace W. Atwood, Mary D. Barnes, George S. Counts, Edmund E. Day, Willard E. Givens, George N. Schuster, George F. Zook.

Our Arrangement with the Motion Picture Association

Even so, the fact that a workable arrangement was brought about is truly surprising. No one of the publisher group fully understands how it came about, when there are so many persons and agencies that would presumably have welcomed an opportunity to function as we did and whose qualifications for such work were far more obvious. A cynical onlooker disinclined to look below the surface might well say that the Association was entrusting costly experimental work to rank amateurs and was going out of its way to avoid expertness in an enterprise in which experience is essential.

This question of how we came to be chosen as planners of experimental films, and of the appropriateness versus inappropriateness of our choice, is a far more important question than may at first appear. The answer to it comes close to being the answer to one of the two main questions that T.F.S. was set up to consider; for *if* our study of the economics of film production and distribution should give us encouragement to proceed, the vital question remained as to whether or not schoolbook publishers really belong in the film business. Mayer thinks they do. Belknap is skeptical.

We suspect that it was both our modesty and our immodesty that got us this film-planning assignment. Certainly as would-be film producers we were far from cocky. Few of us even knew what a script looked like. We understood, or thought we understood, what constituted the shortcomings of certain educational motion pictures. But could we plan pictures that would do a better job? We were by no means sure. To take the initiative ourselves and to offer our services to the Association would have seemed to any one of us sheer effrontery.

On the other hand, there were some things about what we do for a living that tended to give Mayer and his associates in the picture industry faith in our ability to make a contribution to pictures despite our total lack of directly comparable experience. Our none-too-modest analysis of what a schoolbook publisher contributes to education, and of what we hoped we might be qualified to contribute to teaching films if Belknap's findings

should prove in other respects favorable, apparently convinced Mayer, and through him the Association, that for the planning of important experimental pictures we had a good deal to offer.

And so it came to pass that in telling the picture people why we hoped that we could do a good job with pictures if we should enter that field commercially at some future time, we quite unwittingly sold ourselves to the picture industry as a group of men who, with the organizations back of us, could appropriately be dealt with not in the indefinite future but in the year 1946; who could, in short, be entrusted with the original planning of films whose aggregate production cost was at the time expected to go into six figures.

Well, what *are* the items of experience or habits of mind that might presuppose a reasonable degree of success if a schoolbook publisher should undertake the production of teaching films? We won't attempt here an elaborate essay in job analysis, but the following statements are not likely to be contradicted:

1. A textbook publisher must understand education. He must know what goes on in any classroom and why. He must know teachers and understand children.
2. He must be realistic in his appraisal of new ideas and movements in education. If he stubbornly resists change, his output lacks vitality. If, on the other hand, he falls for every new fad, his output lacks practicality.
3. He must be able to distinguish between what is theoretically ideal and what is practically feasible; that is, he must recognize and understand the limitations of what can be done by the average teacher within the usual classroom situation.
4. He must have facilities for finding the persons best equipped to prepare instructional materials.
5. He must have facilities for assuring the factual adequacy of his production. He must know who or what the authorities are in every field, and he must be able and willing to consult them.
6. He must be realistic in his estimate of human and professional values. Educational prestige, even fame, is in itself no guaranty of conscientious or effective workmanship in manuscript production.

7. He must be adept at organizing subject matter.
8. He must guide and help his authors. He must do remedial work of a very intimate nature when his authors' work proves disappointing.
9. He must be able to utilize with maximum effectiveness all the visual resources of bookmaking. He must provide pictures that illustrate effectively, maps that teach, a typographical design or format that makes reading easy and attractive. He must have visual imagination.
10. He must be vigilant and zealous in exercising to the utmost his excellent facilities for two-way contact with American schools, as these facilities may apply either to the editorial or to the distributional aspect of his work.

These are some of the more obvious requirements for successful schoolbook publication. Most of them would be assets in the planning and production of teaching films. Or so, apparently, it seemed to the officials of the Motion Picture Association, which presently through its vice-president, Francis Harmon, offered to produce under the direction of Arthur Mayer a group of experimental films to be planned by us.

It might be expected that the publisher group would feel that it had everything to gain and nothing to lose from such an arrangement, since it would give them highly informative experience in the production of actual pictures without financial outlay on their part. Indeed that is the attitude which after much discussion prevailed. But what, you are probably wondering, could possibly stand in the way of immediate and unquestioning acceptance of an arrangement so patently advantageous to the publishers? Just one thing: the necessity under the arrangement proposed to us for approval by the American Council on Education's Commission on Motion Pictures with its various ramifications. Fears were expressed that committee supervision, however soundly conceived and conscientiously applied, might stifle originality, might level up here and level down there, with a tendency to encourage mediocrity as a result of putting too much faith in standards generally accepted but not necessarily sound. Those who voiced such fears suspected, in short, that our experience with committee supervision might not represent a fair test

of what we could or would accomplish by ourselves without the many helpful features and occasional hindrances of such supervision.

Despite these early misgivings, the offer was accepted. Each publisher was to provide a briefly stated plan or, in motion-picture parlance, "treatment" for a teaching film on a subject to be agreed upon between himself and Mr. Mayer. He could make this plan himself or have it made for him by one of his authors, at his own discretion.

The treatment, when approved by Mayer, was next to be converted into a script,[12] presumably by a professional script writer working in close harmony with the publisher. The script, when made satisfactory to the publisher, the script writer himself, and Mr. Mayer, was then to be submitted to the Commission on Motion Pictures. Actual production of the film was to be contingent upon the Commission's approval of the script. The publishers were to be given every opportunity to assist the director in the course of actual production by pointing out errors or infelicities, or unnecessary deviations from the approved script.

Not only was the output of each publisher at every stage from treatment to finished film to be reviewed by the Commission; every one of the seven publishers was expected to review the picture of every other publisher at least through the script stage. It was felt that only by such coöperation could we learn the extent to which the pooling of ideas would be helpful should the group later decide to engage in motion-picture production on a commercial basis.

Three Pictures That We Did Not Make

At first it was expected that six films would be made under this arrangement—six rather than seven, because two publishers elected to work together on a single picture. Plans for one picture[13] were abandoned early in the script stage owing to lack of

[12] One publisher, however, skipped the treatment stage and supplied a script, believing it easier and more effective to prepare an actual script on what happened to be a more than ordinarily complicated subject, than to explain less directly in conventional treatment form what the script should contain.

[13] On Problem Solving in Arithmetic, a supremely important subject of vast scope—no mere "stumbling block."

agreement as to the type of film treatment appropriate for the subject selected. It had been understood from the outset that any publisher was at liberty to bow out at any stage of production. The fact that one publisher did so is not in itself surprising. Rather it is surprising that other pictures were not wrecked on the rocks of disagreement; for many and earnest, though happily never heated, were the controversies concerning each picture that was made or attempted.

The production of two other films[14] was postponed or abandoned for financial reasons. It was felt that no film should be produced at a cost so high as to be out of the question if the picture were produced under commercial conditions. If these films were to have any experimental value, all of them would have to be produced under conditions, financial and otherwise, reasonably similar to those of industry. A picture could cost half again or even twice what a commercial producer would dare to spend on it, and still illustrate an interesting technique followed at a cost confessedly high but not necessarily prohibitive. For a picture, however, to involve an expenditure five or six times as great as is ordinarily deemed advisable would manifestly destroy any value it might have as an illustration of what can be done on a commercial basis.

The pictures found too expensive to be regarded as feasible, at least as originally planned, were both in the social-studies field. One, as originally planned, would have necessitated a wide variety of elaborate historical settings. To produce the other picture, it would have been necessary to photograph large numbers of actors in settings which would have to be faithful replicas of legislative chambers.

Three Pictures That We Did Make

Three completed films have resulted from this coöperative experiment. Prints may be procured from Teaching Film Custodians, 25 W. 43rd St., New York 18, N. Y. See page 117.

[14] On How Congress Works, and on Roger Williams (religious freedom); both subjects vital, timely, and comprehensive. Mr. Mayer is still hopeful that the latter film will be produced in 1948. For it Emerson Brown of Harcourt, Brace and Company has already written two treatments and is ready to prepare a third whenever the script writers and producers solve the financial problems inherent in this film as planned.

We shall describe these three films briefly in the order of their completion.

Henry Holt and Company did[15] a film on Osmosis.

Black-and-white
Running time: 19½ minutes
Cost: $20,000[16]
Produced by: Affiliated Film Producers, Inc.
Script writer: Irving Jacoby
Director: Willard Van Dyke
Music and sound effects: Henry Brant
Photography: Boris Kaufman
Editor: Milton Hopkins, Henry Holt and Company

As a subject, Osmosis was not Holt's first choice. Loveland, Holt's member of our committee, had suggested several other topics which he thought would make excellent material for a good teaching film; but preliminary data provided by Belknap on the "stumbling blocks" reported by teachers indicated Osmosis to be among the most difficult specific topics for teachers of biology, indeed as difficult as any topic in high-school science. (Certain other topics in subsequent tabulations of Belknap's data forged ahead of Osmosis to claim the doubtful honor of being even more difficult. See page 103.) The T.F.S. group strongly advocated the production of a film on Osmosis, and Loveland and Hopkins cheerfully acquiesced.

Henry Holt's experiences with this film as reported by Loveland have a direct bearing upon the soundness of decentralized

[15] The choice of a verb to express the relationship between publisher and film proved exceedingly puzzling. A publisher shares with others responsibility for choosing a topic; plans a film, chiefly within his own organization but with advice from specialists; guides the script writer and is in turn guided by him; gets pummeled by his fellow-publishers and alternately helped and thwarted by educational committees; compromises again and again; participates to an uncertain and varying degree in actual production, but isn't the producer or the director. What does he do to the film? We have evaded the issue by deliberate use of the most indefinite verb in the English language.

[16] In connection with the cost as stated in the case of each of the three completed films, it should be remembered that conditions were too favorable for economical production to be regarded as typical. Mr. Mayer, for example, donated his time to the enterprise; it was not always necessary to employ a script writer; and there were other economies that would have been difficult or impossible under normal conditions.

as contrasted with frankly autocratic responsibility in matters of film planning and production. Without disparaging the final result, which he thinks good, in fact better than average, Loveland states frankly that he considers the first script written by Jacoby better than the fourth or final script which was actually followed. "Too many cooks." In the case of this film, its originators were strong advocates for dramatizing subject matter by presenting it through the medium of interesting fiction. Other members of the T.F.S. committee were divided on this point. Mayer agreed with the Holt people, Dr. May with the dissenters. Changes actually made in the script were not of a particularly fundamental nature, for on the pivotal question of fictional versus expository form the originators of the film had their way.

Thus to some extent Loveland deplores too extensive coöperation in the planning of the film—coöperation in the sense of restricting influences which it was necessary either to accept or to refute. Conversely, Loveland wishes that it had been possible for the film editor Hopkins to concern himself more than proved feasible with matters of casting and direction. He feels that the film would have been even better had Hopkins had the time to do this.

Thus on neither count does Loveland's interpretation of the Henry Holt experience in coöperative film planning and production give comfort to persons who are disposed to make a fetish of the value of the coöperative action at the expense of centralized responsibility when the arts rather than politics are involved.

This film became available for testing purposes in the late spring of 1947. The extent to which its use increased student knowledge and understanding of the subject was carefully measured by Dr. May's research staff at Yale in behalf of the Commission on Motion Pictures. The results were decidedly favorable to the film as actually made, in so far as it is possible, without an objective measuring unit, to distinguish at all between favorable and unfavorable results. The Commission's sanction of the production of this film in conformity to the script as submitted was conditioned upon the expectation of reshooting the picture with the fictional element left out. Whether or not the apparently

encouraging results of tests of this film by Dr. May's organization will cause the proposed alternate version to be dropped remains to be seen.

The Macmillan Company did a film on The Seasons.

Kodachrome
Running Time: 22 minutes
Cost: $24,000[17]
Produced by: Film Graphics, Inc.
Script provided by: P. A. Knowlton, with the technical assistance of M. L. Robertson, both of The Macmillan Company
Live action directed by: Bernard Rubin, Film Graphics, Inc.
Animation by: Lee E. Blair, Film Graphics, Inc.

Knowlton, who to a large extent carried the ball for Macmillan in the case of this picture, preferred to deal with a subject within or closely related to the field of elementary geography. He, together with his colleagues in T.F.S. and Mr. Mayer, felt The Seasons to be a particularly challenging subject in view of its universally recognized difficulty and at the same time its indispensability to an understanding of important aspects of geography. The geometric nature of the reason for seasonal changes invited picturization. The goal was to teach in the intermediate grades a topic logically required in those grades but ordinarily only dimly understood even in the senior high school or for that matter by adults. It was Mayer who first suggested the use of color, which in Knowlton's opinion would have contributed somewhat more to a film conforming to the original plan than it did to the film actually made.

Macmillan's experience as reported by Knowlton was not unlike Holt's as reported by Loveland. The Holt script went through four forms, the Macmillan script through six. Each of these men frankly prefers the first version of his company's script to the final version actually filmed. Knowlton, however, was essentially overruled on the fundamental question of direct or nonfictional

[17] See footnote 16, page 22.

versus indirect or fictional presentation of subject matter, whereas Loveland won his point.

Knowlton had envisaged a distortion-free animated diagram involving a sharply outlined colored globe revolving, with constantly inclined axis, through black space around a remote sun suggested but never seen, with resulting climatic differences in different parts of the world and at different times of year portrayed through close-ups. The Commission's committee, after much discussion at several meetings, implicitly rejected this plan but accepted with unreserved approval an alternative involving a home-demonstration lesson suggested by one of the other publishers, worked out in detail by Knowlton, and further refined by him under Dr. May's intimate guidance.

Experimental work done thus far in testing the degree of success of The Seasons as a teaching instrument indicates that the improvement in knowledge and understanding of specific facts and principles which results when children view the film is substantially less than in the case of the film on Osmosis.[18] Use of a black-and-white print of this film gives rise to the suspicion that color as here used, though it sustains interest, makes little or no direct contribution to learning. The black-and-white print may be almost as effective and certainly less expensive. For that reason customers (or lessees) will be supplied with either color or black-and-white prints of the picture, a suitable price differential of course being maintained.

Spaulding for Houghton Mifflin Company tells the happiest story of the three. Houghton Mifflin did a film on Borrowing in Subtraction.

Black-and-white
Running time: 12 minutes
Cost: $16,000[19]
Produced by: Raymond Spottiswoode of *World Today*
Directed by: Roger Barlowe

[18] But, remarks Arthur Mayer, it should be remembered that the former is intended for use in the elementary school, the latter in the high school; and for a more favorable interpretation, see an article by Roger Albright entitled "Do Films Really Make Teaching More Effective?" in *The Catholic Educator* for March 1948.

[19] See footnote 16, page 22.

Treatment and film editing by: William E. Spaulding and George F. Nardin, both of Houghton Mifflin Company
Script writer: Raymond Spottiswoode
Music by: Louis Applebaum

In this case also, as with Osmosis, the subject actually portrayed was the publisher's second choice. It had been the original desire of the Houghton Mifflin men to work on a film on Accelerated Motion, owing to the fact that there were available to that publisher two authors who were much interested in a film on that subject. Both May and Mayer, however, were especially interested in the possibilities, virtually unexplored, of arithmetic films and felt that failure of the T.F.S. group to provide an arithmetic film would represent a lost opportunity. When, therefore, the film on Problem Solving in Arithmetic was abandoned (p. 20), Spaulding agreed to drop his original idea and to provide the desired arithmetic film, the other publishers in the group all being preoccupied, by that time (the spring of 1946), with subjects already agreed upon.

The Houghton Mifflin film also underwent a series of changes. Like the others it was discussed intimately and at length with members of T.F.S. and with Dr. May and his staff.

Whereas Osmosis and The Seasons were both problem children, Borrowing in Subtraction at least by comparison gave its parent publisher little trouble. There was, to be sure, some initial disagreement within T.F.S. as to the need for the use of magic as a fictional device, but the advocates of everyday realism capitulated rather promptly to the romanticists. This was the last of the three films to be produced, and perhaps it was beginning to dawn on everybody concerned that it might be a good idea to let one publisher have what he wanted and to see how it would work.

Borrowing in Subtraction was completed so recently that the experimental work on it has barely been begun.

By-Products of Our Experiment

Surely we have not given our readers the impression that we are smugly complacent about the merit of the pictures we have

fathered. Neither, on the other hand, is T.F.S. in the slightest degree ashamed of these films. Few authors or editors look with unqualified approval upon the finished product of their labors. Merits have a way of dwindling; faults are magnified. Very likely all three of our pictures are better than their originators feel them to be. We see no harm, however, in reporting to you some of the problems encountered and lessons learned in the course of this coöperative experiment in picture making.

1. In the choice of topics or themes for our classroom films, an interesting difference soon became apparent within our group. It is perhaps natural that textbook publishers' interest in film making should be confined almost exclusively to classroom films that teach specific subject matter in contrast to auditorium films of a more general character. The latter have their uses, but are hardly within our bailiwick. Within the category of strictly teaching films, we approached the task of choosing a subject from two radically different points of view.

Some of us selected subjects of such restricted scope, topics so minute, if you please, in comparison with the entire range of subject matter in a given course, that there could be no question, on the ground of complexity of theme, as to the possibility of presenting them adequately in one or two reels. Such a picture might explain the meaning of the decimal point, or Boyle's law, or how to use a toothbrush. The narrower the scope of a subject, other things being equal, the easier it is to make an effective teaching film and the greater likelihood of success.

Others, however, emphasizing the value of the motion picture as a medium for synthesis, preferred to experiment with subjects of maximum rather than minimum scope compatible with the two-reel limitation as to length.[20] A picture of this type might portray the daily life of a Roman, or the relation of a port to its hinterland. In fact, some of us question the value of the "stumbling-block" approach to film planning, seeing in it little more than a convenient means of identifying photogenic molecules of subject matter—in complete and unnecessary disregard of the

[20] For reasons that will be evident to anyone versed in the use of teaching films, by common agreement a running time of approximately twenty-two minutes was accepted as maximum.

value of comparatively long pictures that organize and relate the contents of entire areas.[21]

2. We received abundant confirmation of the wisdom, indeed the necessity, of a careful preliminary analysis of the subject matter of a film prior to the actual detailed planning of the film; together with explicit ideas as to teaching objectives and proposed gradation. Indeed our work in this aspect so far exceeded the Commission's expectations that the latter, on at least one occasion, found it difficult to credit the extent and intricacy of the preliminary steps thus taken. Furthermore, every one of the pictures made or projected was, from stage to stage of planning and production, the subject of intimate and numerous consultations with recognized specialists in subject matter or in the art of teaching or in both.

3. There was a sharp difference of opinion as to the need or value, in a teaching film, of showing children in the act of learning in contradistinction to showing merely what they are to learn. It is probably just a coincidence that all three of the pictures actually made show juvenile characters learning the facts and principles which the film is designed to teach the children who see and hear it. Interestingly enough, there was little consistency of reaction on this point. Critics, who in the case of one film were strong advocates of the vicarious kind of learning whereby children viewing a film are expected, at least in some degree, to identify themselves with characters in the film, opposed the same procedure when applied to another film.

In the main, the experts (*i.e.*, the educational advisers) in the case of a film teaching a comparatively simple lesson appeared to prefer a minimum of reliance upon child characters depicted as learning that lesson; but when the same experts considered the subject matter of a film complicated and on the border line between what children can be expected to master and what would probably go over their heads, they preferred to represent children as learning subject matter in the picture. Seeing is believing, and a child who sees and hears other children learn (even in a

[21] It should be pointed out, incidentally, that choice of film subjects on the basis of difficulty rather than ease of presentation implies that the publishers, neophytes in film planning, deliberately chose the hardest possible assignments.

picture) tends, if he has normal self-confidence, to believe that he can learn the same lesson himself and he forthwith learns it. Such at least is the theory.

4. Closely akin to this question of direct teaching of facts and principles versus making a picture an object lesson in learning, was a difference of opinion as to the value of elaborate use of animation with an off-stage narrator versus teaching more conventionally with a classroom demonstration whereby the screen became a classroom within a classroom. A film on the structure of the solar system built according to one of these plans would show a scale model or diagram of the solar system being studied by children in the picture. A film made the other way would employ animation exclusively, with close-ups and fade-outs, sudden approaches to and swift departures from heavenly bodies as if by rocket ship, with perhaps devices for showing comparative interplanetary distances by the different times required for traversing different expanses of space. Adherents of the first method tend to regard the second as flashy, would-be-Hollywoodish, appealing perhaps to adults but unintelligible to children. Advocates of the second method tend to regard the first as stodgy and lacking in Buck Rogers appeal.

5. There were sharp differences of opinion as to the extent to which fantasy may profitably be employed in a picture designed to give children a true understanding of an abstract principle which they too frequently repeat and even apply without full appreciation of its meaning.

6. We learned that it pays to "follow through" on a picture. Relay-race methods don't apply to picture making. The originator of a plan for a picture, if he does not himself provide the script, should assure himself that the script writer departs from the pattern set down in the treatment only for good reason. Furthermore, it is advisable, if at all possible, that the originator of the film view it through all stages of production. On the positive side, this tends to assure appropriate casting in the case of live-action films; negatively, it provides for detection and prevention of ineptitudes and inconsistencies both in live action and in animation.

7. It was demonstrated conclusively that our publisher group can work together. At the same time an unconvinced minority

among us began to suspect that group opinion is not always better than individual opinion, and that stubbornness rivals open-mindedness as a virtue in coöperative projects. Creative ideas are more likely to be born in one man's brain than in half a dozen brains working together. If schoolbook publishers ever join forces in planning teaching films, they will do well to regard each new picture as its creator's own baby and to remember that the much-vaunted democratic principle of majority rule has only a limited application to creative projects.

8. We also learned that we could work harmoniously with old-timers who devote their lives to picture making—script writers, producers, animators, photographers, even actors. We did not make the mistake of concluding that there is nothing to script writing except salting scenes liberally with sophisticated "dissolve to's" and "iris wipes." Relations between publishers and their respective script writers were uniformly good. We enjoyed our dealings with Mayer, whose genius for leadership through encouragement was always apparent, and with Roger Albright, the Association's Director of Educational Services, who substituted for Mayer when the latter did a return engagement for the Red Cross for a few weeks some months after the project started, and who took over in large part the relations with T.F.S. originally handled by Francis Harmon in behalf of the Association. We got on famously with the producers and their staffs.

Just as the technicians with whom we worked impressed us as master craftsmen, so we understand that our own group's not unhappy blending of educational assurance with cinematic humility made a good impression upon that small segment of the picture industry whose orbit crossed ours.

9. Inevitably, we picked up not a little technical information. We learned something of the relative advantages and disadvantages of animation and live action and of when either is to be preferred to the other because more effective or more economical; some of the many forms and uses of animation, ranging from the standard type which requires a separate drawing for every frame to the photography of manipulated models; when color teaches, and when it merely gilds the lily; how to achieve transitions from picturizing the activities of speaking characters to por-

traying through animation what the characters are thinking about; the inconsistency between complicated, long-drawn-out visual scenes and laconic speeches, or long-winded dialogue with little or no visual change. Should some or all of the seven publishers again work on teaching films either together or separately, we should not be totally ignorant of how to proceed.

10. We learned that the testing of teaching films for merit is still in its infancy. Ingenious methods of appraising teaching films are being devised and used by the Commission's research staff, but at best these methods do little more than measure what a film teaches. They leave unanswered the question as to the percentage or proportion of possible gains in knowledge which could fairly be expected to result from the use of an excellent film versus a mediocre film or a poor film.

That there are no general yardsticks for the measurement of film merit is perhaps not surprising; for, after all, we publishers know perfectly well that there are no valid standards for the comparative evaluation of textbooks, except perhaps in the case of directly competitive books on exactly the same subject intended for exactly the same grade. But there is a wealth of research as to the comparative values of different kinds of instruction, with direct implications for printed instructional materials notably in such fields as reading, spelling, and arithmetic, whereas research on the effectiveness of mutually competing motion-picture techniques is conspicuously lacking.

There is, to be sure, a fair amount of published research comparing results obtained by the use of printed materials plus visual aids with those obtained by the use of printed materials without visual aids; but there has been an amazing lack of research in which the variable is not the presence or absence of a teaching film, but the type of technique employed in the film itself. Perhaps it would be fairer to say that this lack *would be* amazing were it not for the expensiveness of a type of research which would necessitate the making of several alternative forms of so inherently costly an item as a teaching film.

3

The Belknap Report

A Highly Selective Digest of a Digest

THE FOLLOWING is a table of contents of the Belknap report:

Introduction The Scope and Purpose of This Survey (4 pp.)

Part I The Market for School Films

- Section 1 Projector Ownership in Public Schools (15 pp.)
- Section 2 Expenditures for Visual Education in the 501 Largest Systems (20 pp.)
- Section 3 The Rental Market (13 pp.)
- Section 4 Handicaps and Obstacles (64 pp.)

Part II The Need for More and Better Films

- Section 1 School Subjects in Which Motion Pictures Are Now Used (37 pp.)
- Section 2 The Motion Pictures That Teachers Like (36 pp.)
- Section 3 What the Schools Want (40 pp.)

Part III Conclusions and Recommendations (21 pp.)

- Appendix No. 1 The "Stumbling Blocks" in Elementary-School and High-School Subjects (97 pp.)
- Appendix No. 2 Methods Used in Estimating Projector Ownership in Public Schools (26 pp.)
- Appendix No. 3 Film Strips and Supplementary Aids Used With Motion Pictures (19 pp.)
- Appendix No. 4 How Films Are Bought by School Systems (5 pp.)
- Appendix No. 5 Summary of Publishers' Evaluations of a Certain Widely Used Film (6 pp.)

The complete Belknap report comprises 403 single-spaced typewritten pages, mimeographed. The length in pages of each part, section, and appendix is indicated in the table of contents here reproduced.

This would make a book of perhaps 500 printed pages which in our opinion would be read by only a small number of persons, for the most part vocationally identified with audio-visual education. Publication on a commercial basis, as we remarked on page 12, seems impracticable.

Even if it were feasible, on economic grounds, to make a wide distribution of so lengthy a document, there are other than economic reasons why publication without abridgment would be inadvisable.

As a business report, it contains lengthy justifications for items of advice to clients which, though important to them, would be of little interest to teachers or school administrators. The latter might derive greater profit from reading summaries of kinds of research that visual education sadly needs—research on the subject of what makes one picture do a good job while another picture on the same subject does a poor job. Just as aviation profits more from studies of airplane design, aerodynamics, and airport planning than it does from grandiose propaganda on the marvels of the air age, so visual education needs down-to-earth studies of how to educate visually rather than extended explanations of why additional organizations should or should not go into the film business.

Again, the Belknap report, quite properly in view of its purpose, presents explicit and voluminous data on teachers' and publishers' reactions, often unfavorable, to specifically named films of specifically named producers. Such information is not suitable for publication. We sought, through Belknap's activities and our own, to learn how existing films could be improved upon. Under such circumstances one looks for shortcomings and usually finds them. When you ask the question, "Wherein does So-and-so's product fall short of perfection?" the tone of any lengthy answer, however circumspect, is bound to be unfavorable.[22] On the other

[22] In published research reports involving analyses and appraisals of a group of mutually competing textbooks, it is customary even for writers who could not possibly be thought to have a commercial ax to grind to withhold information as

hand, we are not only entitled but obligated to relay to you what Belknap tells us about the extent to which teachers and school administrators, as a professional group, are according to his findings dissatisfied with existing films in general, and why.

The component parts of the Belknap report fall into four classifications:

1. Material on the economics of film production and distribution, of moderate interest to users of films, of greater interest to producers and distributors of films, and in no sense confidential.
2. Material on the value of films now[23] available and the extent to which the market is satisfied with them, interesting but for obvious reasons unsuitable for publication.
3. Advice to us as clients, frequently so personal as to be of little or no interest to the general reader.
4. Informational by-products of the inquiry fully as useful in the editing of schoolbooks as in film production, the application of which to our operations as schoolbook publishers will undoubtedly be differently interpreted by different members of our group.

Partly for the reasons we have indicated, the following digest of the Belknap report (pp. 35-103) will differ greatly from the report itself in relative space devoted to topics of different kinds.

Excerpts and Summaries

We owe it both to Belknap and to our readers, since the need for economy of space and, in spots, for reticence will conspire to compress or suppress other portions of the report, to quote a large part (about sixty per cent) of Part I, Section 1 verbatim.[24]

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to the identity of the readers or arithmetics or what have you that they are analyzing. It is, so to speak, the principles and the methods back of and underlying their concrete expression in books which form the avowed subject matter of published textbook criticism. If teachers and writers are so tender toward one another's vested interests as authors, it is perhaps natural that a group of publishers should avoid any course even remotely suggestive of a concerted attack upon specific films or the total output of any designated producer of school films.

[23] Or, more strictly, at the end of the year 1945.

[24] Excisions will be indicated, here and henceforth, by asterisks (* * *) between paragraphs or by leaders (. . .) within paragraphs.

This will give the reader some idea of the logical and forceful way in which Belknap summarizes and interprets data.

PART ONE. *The Market for School Films*

SECTION 1. PROJECTOR OWNERSHIP IN PUBLIC SCHOOLS

In appraising the market for school films, the first necessity is a reasonably sound estimate of the number of projectors now in the public schools and likely to be in the public schools in future years. This study has enabled us to make what seem to be acceptable estimates.

As the estimates presented in these pages differ in many respects from some of the figures most commonly stated or claimed in discussions of the progress of visual education, the validity of our estimates must be subject to review. For this reason, the methods used in developing our estimates are explained fully, in Appendix No. 2, for the information of those who wish to wade through the details of the procedure. What is said in that Appendix may be summarized thus:

> The estimates of projector ownership in 1940, 1945, and 1946 are believed to be reasonably correct, probably within 5% or less, plus or minus.
>
> The estimates for 1951, in the 501 largest public-school systems, are also likely to be reasonably accurate.
>
> The estimates for 1951, for "all other systems," and the estimates for 1960, for the 501 largest systems and for all other systems, are range-approximations based on what seem to be the most likely projections of past and present trends.

It should be emphasized that the figures shown in this section are necessarily estimates, which rest in part on judgment and on the interpretation of apparent trends. Nevertheless, they probably provide the most nearly accurate summary that has yet been issued. It seems unlikely that any major conclusions based on our estimates can be seriously in error.

The 501 Largest Systems

Before showing and discussing the estimates, it will be well to explain the exact meaning of one term: "the 501 largest systems."

Our basic data on public-school ownership of projectors come from

the systems visited by the publishers' salesmen. The list of cities originally scheduled for these visits included the 501 largest cities in the country, on the basis of population in 1940. The smallest cities in the list had in 1940 slightly more than 19,000 population and may be assumed to have grown to 20,000 or more by 1945.

Of course it must also be taken for granted that a number of cities too small in 1940 to be included in the original list had grown sufficiently to have populations of 20,000 or more by 1945. But, for practical purposes, we cannot be far wrong if we regard the 501 cities as comprising a nearly complete list of all cities with populations of 20,000 or more in 1945.

* * *

Throughout the analysis, the classification has been made on the basis of 1940 population. Sufficiently accurate data for classification by estimated population in 1945 or 1946 were not obtainable for enough of the systems. This use of 1940 population figures in grouping the school systems probably has little significant bearing on the accuracy of the estimates, but should be borne in mind to avoid misinterpretation.

Public-School Ownership of 16mm Sound Motion-Picture Projectors

The following table shows the over-all estimates of the growth of ownership of 16mm sound motion-picture projectors in the public-school systems.

Growth in Ownership of 16mm Sound Motion-Picture Projectors

	501 Largest Systems	All Other Systems	National Total (48 states and D.C.) (in round numbers)
1940	3,470	8,000	11,500
1945	5,995	10,000 to 12,000	16,000 to 18,000
1946	7,440	12,000* to 13,500*	19,500* to 21,000*
1951	12,350	16,000* to 20,000*	28,000* to 32,000*
1960	23,000* to 30,000*	25,000* to 40,000*	48,000* to 70,000*

In this table, the estimates marked with asterisks represent what seem to be most likely projections of past and present trends. The

figures not thus marked may be regarded as reasonably factual estimates, which are probably very close to the actual figures.

The most obvious inference to be drawn from these estimates is that the public-school ownership of 16mm sound motion-picture projectors is still in its childhood, or at most in its early adolescence.

In considering this inference we must remember that 16mm sound motion-picture projectors have been available for school purchase for only about 15 or 16 years at most. In their earliest years their school market was restricted by the lack of films that could be used in them. Some of the schools already owned 16mm silent motion-picture projectors and films. What is notable is not the slow progress of 16mm sound motion-picture projectors in the past 15 or 16 years, but the fact that so much progress has been made during those years.

The range-estimates for 1960 (and for 1951 in "all other systems") must be regarded largely as expressions of personal judgment. The judgment that they reflect, however, is informed judgment, not mere guesswork or wishful thinking, for it rests on painstaking and unbiased analysis of a considerable body of factual data.

Even with the most conservative acceptance of the estimates for 1951 and for 1960, it seems plain that the school market for motion-picture films (as measured by school ownership of 16mm sound motion-picture projectors) will be far bigger in the 1950's than it is at present. The further we go with this analysis, the more obvious this conclusion will become.

The next step is to look at the main division of the school-owned projectors, between elementary schools and high schools, in the 501 largest systems (which contain most of the "purchase market" for motion-picture films).

Elementary-School and High-School Ownership of 16mm Sound Motion-Picture Projectors in the 501 Largest Public-School Systems

	Elementary Schools	High Schools	Circulating and "other locations"
1940	1458	1382	630
1945	2910	2645	440
1951	9170	2915	265

The estimates of the number of circulating projectors and projectors in "other locations" in public-school systems have little significance, except to indicate the visible trend toward disappearance of circulating projectors in public-school systems, and to indicate that even in

1940 the circulating projectors did not play a very important part in the 501 largest systems.

In the table above, the estimates for 1940 and 1945 are probably very close to being correct. The figures for 1951, however, may err in allocating slightly too many projectors to the elementary schools and correspondingly too few to the high schools. The estimated division between elementary schools and high schools, in 1951, embodies interpretation of past trends. It rests to some degree on the assumption that when high-school ownership of 16mm sound motion-picture projectors has reached an average of one projector per high school in the 501 largest systems, most of the additional projectors purchased will go into the elementary schools. The soundness of this assumption does not appear to be open to any serious question.

Converted into ratios, the figures in the preceding table become as follows:

AVERAGE NUMBER OF 16MM SOUND MOTION-PICTURE PROJECTORS PER SCHOOL IN THE 501 LARGEST SYSTEMS

	Elementary	High
1940	0.144	0.516
1945	0.283	0.976
1951	0.892	1.076

As these averages indicate, the first emphasis fell on equipping the high schools.

By 1940, in the 501 largest systems, high-school ownership of 16mm sound motion-picture projectors averaged more than half a projector per high school, but elementary-school ownership averaged only one-seventh of a projector per elementary school.

* * *

Up to 1945 the primary emphasis continued to fall on equipping the high schools. By 1945 the high-school average was nearly 1 projector per school—in the 501 largest systems. But this fact could not be taken to mean that practically every high school in these systems had a motion-picture projector. Some of these high schools had, in 1945, two or three or even more projectors. Some still had none. Some, in all likelihood, will still have none in 1951.

Meanwhile, up to 1945, projector ownership in the elementary schools in these 501 largest systems had begun to grow much more rapidly than in earlier years. By 1945 the average was 0.283 projector per elementary school. As few elementary schools had more than one

projector, in 1945, we can generalize the average into the statement that in 1945 slightly more than a fourth of the elementary schools in the 501 largest systems had 16mm sound motion-picture projectors.

The most significant fact, however, is that most of the gains in these elementary schools from 1940 to 1945 occurred in systems that had reached an average of one projector per high school. As soon as that high-school average was reached, there was a strong general tendency to concentrate additional projector purchases in the elementary schools.

The estimated division between high schools and elementary schools in 1951 rests largely on the assumption that this past and present tendency will continue, and that there will be no further great increase in high-school ownership of 16mm sound motion-picture projectors until the job of equipping the elementary schools with an average of one projector per school has been completed.

Even if somewhat too much reliance has been placed on this assumption in estimating the division in 1951, it seems reasonable to expect that in 1951, in the 501 largest school systems, the elementary schools will have approximately three times as many 16mm sound motion-picture projectors as the high schools do. This expectation has major importance in an appraisal of the present and probable future market for school films.

The school market for films divides into two contrasting parts: the purchase market and the rental market. This division is not merely the result of the amount of money available for films. Another main factor is the school system's "cost per showing," which depends on the frequency of use of a given film, which in turn depends largely on the number of projectors in which a given film can be used (as well as on the number of classes or grades to which a film can be shown).

At the risk of oversimplification, this controlling factor can be stated rather plainly. When the number of schools equipped to use a film is small, it is cheaper for the system to rent than to buy films. When the number of schools equipped to use a given film and desiring to use it is "large" (in round numbers, 10 to 15 schools or more, within a system), it becomes cheaper for the system to own films than to rent them.

Thus up to now one primary reason for the restricted purchase market for school films has been the fact that so few elementary schools had motion-picture projectors. The chief purchase market up to now has had to be the high-school market, which could not be more than a relatively small market and can never be more than that

for the simple reason that only a rather small number of school systems have many high schools.

As soon as the elementary schools in the 501 largest systems approach an average of one projector per elementary school, the school market for 16mm sound motion-picture films will become big enough to deserve serious consideration. The time when this average will be approached will be in the 1950's—possibly in the early 1950's but certainly not before 1951 or 1952.

As the financial success of a school film-producing operation must come chiefly from sales of films to school systems rather than from sales to rental libraries, the advantages of the 1950's as a time to start such an operation seem very plain.

Where the 16mm Sound Motion-Picture Projectors Are Located

* * *

Number of 16mm Sound Motion-Picture Projectors in Public-School Systems in Cities of Differing Sizes

	City Size				
	20,000 24,999	25,000 49,999	50,000 74,999	75,000 99,999	100,000 or more
Systems	90	212	71	35	93
Projectors					
1945	388	1205	664	402	3336
1946	467	1491	728	471	4283
1951	653	2185	1116	673	7723

This table indicates plainly the degree to which the public-school ownership of 16mm sound motion-picture projectors is now concentrated—and will probably continue to be concentrated in the near future—in the larger cities.

The next table shows the same fact in a different way and perhaps more clearly.

Average Number of 16mm Sound Motion-Picture Projectors Per System in the 501 Largest Systems

	City Size				
	20,000 24,999	25,000 49,999	50,000 74,999	75,000 99,999	100,000 or more
1945	4.31	5.68	9.35	11.43	35.87
1946	5.19	7.03	10.25	13.46	46.05
1951	7.36	10.31	15.72	19.23	83.04

Of course, some small systems buy films; and some big systems rent films instead of buying. But, in broad terms, the following conclusions are warranted:

1. School systems in cities of less than 25,000 population are not now a good "purchase market" for sound motion-picture films and will not be a good purchase market in the early 1950's. Even when they have an average of one 16mm sound motion-picture projector per school, both in elementary schools and in high schools, it will be more economical for them to rent films rather than to buy films.
2. School systems in cities of 25,000 to 49,999 population are not now a good purchase market for films and will constitute only a poor purchase market by 1951.
3. School systems in cities of 50,000 to 74,999 population do not now provide a good purchase market for films and will probably be only a fair purchase market in the early 1950's.
4. School systems in cities of 75,000 to 99,999 population now provide a mediocre purchase market and will probably provide only a fairly good purchase market in the early 1950's.

In short, the public-school purchase market for motion-picture films now consists chiefly of school systems in cities with populations of 100,000 or more, and this condition is not likely to change more than moderately by the early 1950's. The implication of this broad generalization is that we should not expect to see any astounding increase in school expenditures for film purchase during the next five or six years. This implication is probably warranted. Evidence strongly supporting it will be shown in the next section of this report.

Having stated the sweeping generalization about the probable purchase market for motion-picture films, I must immediately hasten to qualify it, in order to prevent misinterpretation. The generalization, of course, is an oversimplification.

Not all systems with large numbers of projectors buy films. Some of the bigger systems, with projectors in most of their schools, rely chiefly on rental of films and will doubtless continue to do so for some years to come for the simple reason that their available funds do not permit purchase of the number of films they want to use. On the other hand some smaller systems, with only a relatively small number of projectors, now own some films and will continue to buy films (gradually and slowly, but steadily). Equally to the point, it must be said that most school systems with any strong interest in visual education would prefer to own their films and will doubtless

tend to exert continued pressure for increased appropriations for this purpose.

Nevertheless there appears to be no escape from the fundamental facts:

Ownership of motion-picture films and the operation and maintenance of a film library are economically justifiable only in the systems that have large numbers of schools equipped with projectors.

Systems with a small number of schools, even when all their schools have projectors, generally find it more economical to rent than to buy films.

Even today the purchase market for motion-picture films extends downward into some of the smaller systems in the 501 chief cities. But the further down we go, the thinner the market becomes and the thinner it is likely to remain.

Only one development could alter this basic generalization. That development would be a major increase in the funds available for films. An increase of this kind might result from pressure from the public and/or from pressure within the school system itself. As the result of such pressures enough money to permit school systems to disregard mere economy might someday become available for the purchase of films.[25] But these pressures do not now exist in sufficient strength to exert any wide influence on actual practice, and there is no visible indication that their strength is going to become much greater in the next few years.

The time may come, and probably will, when the school use of motion pictures will reach a level so far above the present one that far more money will be appropriated for films. At that time, we must assume, the preference for film ownership will outweigh the relative economy of film rental in the smaller systems. But that time is not here yet, and there is no visible reason for expecting it to arrive within the next five years.

For the next five years, and probably for a period still longer, the only sound assumption is that the major purchase market for motion-picture films will consist mainly of the larger school systems in the cities of 100,000 population or more.

Meanwhile it must also be expected that the increasing number of

[25] In several recent news releases motion-picture producers assert that their costs in 1948 have increased nearly 100% since 1939. These increased costs, in part at least, will doubtless tend to force the selling price of educational films to a higher level. Hence larger school appropriations will be necessary to buy an equivalent number of films of equivalent length and merit, to say nothing of a greater number.—COMMENT BY MEMBER OF T.F.S. COMMITTEE

projectors in the schools in cities of less than 100,000 population will make the rental market a better market than it now is. With more projectors, the schools that rent films will rent more films and the rental libraries will have more prints per title.

Even with an increase in the average number of prints per title in the film-lending libraries, the film producer's total market for school films will remain a restricted market for some years to come.

The purpose of these sobering comments should be understood clearly. Their sole purpose is to put some perspective into the picture. Only too often enthusiasts in the field of visual education fall into a wide-open trap. They assume that an increase in the number of projectors in the schools will produce automatically an equal increase in the number of prints that can be sold directly to the schools. That assumption is not warranted.

Enthusiasm generated by our estimates of the increasing number of projectors in the schools should be tempered by thoughtful consideration of the basic distinction between the purchase market and the rental market for motion-picture films in the public-school systems.

Probable Increases After 1951

* * *

There is, plainly, sound reason for believing that the ownership of 16mm sound motion-picture projectors will not stop growing when an average of one per school has been attained. By 1950 or 1952 at least some of the superintendents may have caught up with the V.E. supervisors who are now talking about the need of two and three projectors per school.

Even this, of course, is far below the much-publicized dream of "a projector in every classroom." On the record, there is no ground for expecting that dream to come true within the next fifteen or twenty years, even in the 501 biggest systems, and even if the cost of projectors is reduced at some time during those fifteen or twenty years.

But there is good reason for expecting the number of 16mm sound motion-picture projectors to keep on growing in the 501 biggest cities well beyond the 12,350 that we have estimated will be in use by the end of 1951.

* * *

Silent motion pictures are dismissed as (actually but not always deservedly) obsolescent. Then follow data on film-strip projec-

tors, which we omit not because we are not interested in film strips, but because their usefulness and economic practicability are too obvious to require space here.

Some Basic Comments

It will be well now to summarize some of the main facts and conclusions that have been stated or implied earlier in this section.

1. By 1945 high-school ownership of 16mm sound motion-picture projectors had almost reached an average of one projector per school. Elementary-school ownership, however, averaged only a little more than one-fourth projector per school.
2. By 1951 or 1952 this disparity should have been reduced to a great degree. By that time, it seems likely, elementary-school ownership of 16mm sound motion-picture projectors per school will almost have caught up to the high-school ownership per school.
3. Even in 1945 slightly more than half of the 16mm sound motion-picture projectors in the 501 largest systems were in the elementary schools. By 1951 there will probably be about three times as many such projectors in elementary schools as in high schools in these 501 systems.
4. This should make the elementary schools the dominant market for the purchase of motion-picture films by 1951.
5. The school market for motion-picture films should be much better in the 1950's than it is at present. While we cannot assume that school ownership of films will increase at precisely the same rate as the ownership of projectors, the opportunity for the film producer should then be notably greater than it now is.
6. Rather obviously, these conclusions seem to imply that anyone who enters the production of school films will have a better chance of success in the 1950's than he is likely to have at present.

SECTION 2. EXPENDITURES FOR VISUAL EDUCATION IN THE 501 LARGEST SYSTEMS

The preceding section of this report has stressed the fact that the purchase market for school films is a restricted market, concentrated chiefly in the school systems in cities of 100,000 population or more. This fact becomes still more apparent when we examine the expenditures for visual education in the school systems from which information about this subject was obtained.

What this present section will show is that the sale of motion-picture films to public schools is a small business, dominated by the sales to a small number of very large cities and unlikely to become more than a small business within the next five or six years.

Belknap here comments on the relatively fragmentary character of financial data elicited from superintendents and V.E. directors, making it clear, however, that his conclusions on this aspect of the inquiry need not be regarded as vitiated by the incompleteness of the data on which they are based.

It must be understood clearly that the analyses in the succeeding pages of this section cannot attempt to measure with precision the expenditures in the 501 largest systems. All that these analyses can do is to indicate the "probable maximums." We shall be able to see the maximum available market for films bought by schools, now and in the next few years. We shall not be able to determine the extent to which the maximum exceeds the actual market.

This too is a point of minor importance. Even the probable maximums will seem discouraging to a prudent man. There will be no great need of trying to whittle down the maximums in order to define more accurately the actual limits of the main purchase market for films in the largest school systems in this country.

Total Expenditures for Visual Education

The average expenditures for visual education in systems visited during this survey, as stated and predicted by superintendents and assistant superintendents, are as follows:

	Systems Reporting	Average per System
1945-46	322	$ 8,611
1946-47	181	8,771
1947-48	120	11,921
1948-49	89	18,068

Only 89 systems gave us complete data for the four school years. Their averages are as follows:

1945-46	$12,101
1946-47	12,446
1947-48	15,433
1948-49	18,068

Converted into percentages of the 1945-46 expenditures, the averages for these 89 systems look like this:

1945-46	100%
1946-47	103%
1947-48	127%
1948-49	149%

* * *

The next table shows the percentage of reporting systems that spent or will spend more than $10,000 on visual education in each of these years:

	1945-46	1946-47	1947-48	1948-49
Number of systems giving definite estimates	322	181	120	89
Number spending more than $10,000 on visual education	43	26	27	27
Per cent of reporting systems spending $10,000 or more	13%	14%	22.5%	30%

The figures in the last line of this table are shown here in order to sound one vigorous warning. It must not be assumed that these percentages apply to all of the 501 largest systems. Quite the contrary. There is good reason to believe that the nonreporting systems and those listed as undecided will fall below the systems that supplied definite estimates. In other words, 13 per cent is the probable maximum proportion of the 501 systems that spent more than $10,000 on visual education in 1945-46, and 30 per cent is the probable maximum for 1948-49.

Thus among the 501 largest systems the largest probable numbers of systems likely to spend more than $10,000 on visual education are as follows:

1945-46	1946-47	1947-48	1948-49
65	70	123	150

In each of these four years the number of systems actually spending $10,000 or more on visual education must fall below these figures—how far below, we cannot say. Visual education is not big business today and shows no signs of becoming big business in the near future.

* * *

ESTIMATED DIVISION OF V.E. EXPENDITURES IN 322 SYSTEMS IN 1945-46

	Average per system
Salaries of V.E. director and aides	$4266
Purchase of projectors	1588
Purchase of films	1359
Rental of films	335
Other V.E. expenditures	1063
	$8611

These "possible" figures should be taken with a grain of salt. All that they actually say is that the average per system, for each type of V. E. expenditure, probably does not exceed these figures—and may be smaller—in the 501 largest systems. Yet these probable maximums justify some broad interpretations, which will help to clarify the picture of the market for school films.

1. In 1945-46 a very large share of V.E. expenditures in the 501 largest systems went into the salaries of V.E. directors and their assistants. Possibly as much as half of the total was spent in this way. In future years, with larger appropriations for visual education, the share devoted to such salaries may take a smaller percentage of the total. But, against that assumption, there is the plain fact that many school systems do not yet have adequate V.E. organization or personnel and want to spend more money in this particular fashion. On the whole it is probable that this part of the V.E. operation will continue to take a large part of the total V.E. expenditure for some years to come.
2. In round numbers, then, only about half of the total V.E. expenditure in the 501 largest systems is available for the purchase of projectors, the purchase of films, the rental of films, and "all other V.E. expense." (Any individual system, of course, may be a marked exception to this generalization. All we are talking about is the aggregate market provided by the 501 largest systems.)
3. Of that half, in 1945-46, a little more than a third was going into the purchase of projectors. This proportion should probably be expected to continue for some years.
4. The amount spent on purchase of films was probably less than the amount spent on purchase of projectors, and may be expected to remain less, until the schools have come much closer to having the number of projectors that they want. The middle 1950's will

be the earliest years in which any change in this relative balance should be expected; and it may not occur even then.

5. The small amount per system for rental of films provides full explanation of the reasons why the rental distribution of school films does not interest commercial distributors, but must be handled by subsidized lending libraries of one kind or another.
6. Of the total V.E. expenditures, about one-eighth goes to "other V.E. expenditures." In the main this classification probably includes such items as (a) cost of other types of V.E. materials and supplies, (b) film-delivery costs, and (c) salary costs allocated to this classification by some superintendents. There is no reason to expect this proportion to change substantially in the near future.

We can sum up this analysis, perhaps, by saying that only about one-sixth to one-seventh of the total expenditure for visual education in the 501 largest systems now goes to the purchase of films, that this proportion is not likely to change very much in the next four or five years, and that the average expenditure for purchase of films, in these 501 largest systems, probably did not exceed $1359 per system in 1945-46 and may have been below that level.

This brings us to the central topic of this section.

Expenditures for Purchase of Films

If the average expenditure for purchase of films in 1945-46 in the 501 largest systems was as high as $1359 per system, the total amount spent for this purpose by all of these 501 systems in that year would have been approximately $681,000.[26] The actual figure may have been a little larger than this. Even so, it is obvious that we are looking at a market that can hardly be regarded as very tempting.

Two hundred thirty-four school systems (less than half of the 501 largest systems) reported their expenditures for purchase of films in the school year 1945-46. The fact that less than half of the 501 largest systems gave us this information will raise instant questions about the degree to which their expenditures can be regarded as typical. But let's look at the record.

[26] It is doubtful that Belknap has given sufficient weight to the number of films schools buy with P.-T.A. and similar funds or to the number of films donated by civic organizations. Even though such additions might increase Belknap's estimate by as much as 15 or 20 per cent (see page 47), the resulting total would still not be large enough to vitiate Belknap's conclusions.—COMMENT BY MEMBER OF T.F.S. COMMITTEE

FILM-PURCHASE EXPENDITURES OF 234 SYSTEMS IN 1945-46

	Number of Systems, in Each Size of City				
	20,000 24,999	25,000 49,999	50,000 74,999	75,000 99,999	100,000 or more
Total number of systems, in the 501 largest systems	90	212	71	35	93
Number of superintendents reporting	38	89	33	11	62
Expenditures for film purchase $0	24	36	8	2	1
$ 1-500	10	39	16	4	10
$ 501-1,000	3	10	4	2	7
$ 1,001-1,500	—	—	3	1	4
$ 1,501-2,000	—	—	2	1	7
$ 2,001-2,500	1	2	—	—	6
$ 2,501-3,000	—	1	—	—	2
$ 3,001-3,500	—	—	—	—	2
$ 3,501-4,000	—	—	—	—	4
$ 4,001-4,500	—	—	—	1	—
$ 4,501-5,000	—	1	—	—	7
$ 5,001-6,000					2
$ 6,001-7,000					2
$ 7,001-8,000					1
$12,501-15,000					1
$20,001-22,500					2
$45,001-50,000					2
$65,000					2

One glance at this table is enough to enable anyone to grasp the plain fact that the worthwhile market for film sales is concentrated chiefly in the cities with populations of 100,000 or more.[27]

* * *

Out of the total of $482,629 spent on film purchases by these 234 school systems, $315,753 came from only 19 systems—all in cities of 100,000 population or more. Those 19 systems are the only ones that spent more than $5000 on the purchase of films, in 1945-46, out of all the 234 systems that reported on this subject.[28] The significance of this fact is obvious.

[27] A member of the T.F.S. committee who has a rather wide acquaintance among film distributors quotes more than one distributor as stating that, whatever may be the formal budgetary limitations within which V.E. departments operate, schools and school people that *really want* a good film ordinarily manage to find, somewhere, the money with which to buy it.—EDITOR

[28] A member of the T.F.S. committee points out that, granted the truth of Belknap's statement, any analysis of city systems as a market for films fails to give a

At the present time the major market for the sale of films to school systems is a very narrow one. It is dominated by about 25 to 30 of the largest systems, which buy about two-thirds of the prints that are sold to all of the 501 largest public-school systems in the country. In the 1950's this dominant market will probably broaden to include substantially more of the 93 cities with populations of 100,000 or more, with a fringe of smaller cities to provide the remainder of the purchase market. But today it can be said without much exaggeration that the success or failure of a producer of school films depends very largely on the acceptance or rejection of his films by the V.E. directors in a small group of big cities.

* * *

Probable Increases in Expenditures for Purchase of Films

In 1945-46 the 501 largest school systems had approximately 6000 16mm sound motion-picture projectors. If their total expenditure for film purchase was $700,000, the average expenditure for film purchase was $117 per projector. In 1951-52, we have estimated, these same 501 systems will have about 12,350 16mm sound motion-picture projectors. If the same ratio, $117 per projector, were to hold true in 1951-52, the film purchases of these 501 systems would thus amount to $1,445,000 in that school year. But Section 2 of this report has already stressed the fact that expenditures for film purchase do not increase in exact proportion to school ownership of projectors. So we can regard that figure, $1,445,000, as representing the highest level that the purchase of films by the 501 largest systems could be expected to reach in 1951-52. We may well doubt that it will reach this height at that time.

* * *

ESTIMATED MAXIMUM EXPENDITURES FOR PURCHASE OF FILMS IN THE 501 LARGEST SYSTEMS

	Ratio	Estimated Total
1945-46	100	$ 700,000
1946-47	102	714,000
1947-48	125	875,000[29]
1948-49	145	1,015,000

complete picture of the film market, owing to the fact that certain state, regional, and county film libraries, emphasized elsewhere in the Belknap report, are among the largest purchasers of educational films.—EDITOR.

[29] Since total film purchases in "all other systems" in 1945-46 were probably under $60,000 (see p. 51), it is safe to assume from these figures that less than $1,000,000 a year is currently spent in the purchase of educational films. That is

The most likely projections of the trend shown by these estimates indicate that the probable maximum for 1951-52 might be as high as $1,300,000 or as low as $1,250,000.[30]

* * *

There remains, then, one more question about the purchase market. What film-purchase expenditures are likely to be made by the schools in cities and towns of less than 20,000 population?

The schools in these "other systems" had 10,000 to 12,000 16mm sound motion-picture projectors in 1945 and may have about 28,000 to 32,000 in 1951. We have no data on their expenditures for visual education. Yet we can take it for granted that most of these schools rely primarily on rental and buy very few films (though there have been a few instances in which a number of schools in neighboring towns have clubbed together to buy films and build up a small film library for coöperative use).

* * *

If this guess [that in the smaller cities film-purchase expenditures did not exceed an average of five dollars per projector] is correct, the total film purchases of schools in "all other systems" in 1945-46 did not exceed $50,000 to $60,000 and probably were not even so high. Nor does it seem reasonable to expect such schools to be buying many films in 1951-52. Even then, it seems certain, they will continue to rely primarily on rental and loan; and their film purchases will be too small to play much part in the total purchase market.

* * *

Where the Money Comes From

A total of 360 superintendents in cities of 20,000 or more population have identified the sources of their expenditures for films (which includes both rental and purchase). This is so high a proportion of the 424 superintendents visited by the publishers' salesmen that we may well assume that the figures shown in the following table are fairly typical of all of the 501 largest systems.

* * *

about two per cent of the estimated volume of the schoolbook business for Grades I through XII.—EDITOR

[30] For qualification, see footnote 26, page 48.—EDITOR

SOURCE OF EXPENDITURES FOR FILMS IN 1945-46, BY SIZE OF CITY

City Size	Supts. Reporting	Separate V.E. Budget	General Funds	Student & P-TA Contributions	Incidentals
100,000 or more	86	66.3%	25.6%	8.1%	
75,000-99,999	25	56.0%	28.0%	16.0%	
50,000-74,999	58	56.9%	20.7%	20.7%	1.7%
25,000-49,999	145	48.9%	38.0%	11.7%	1.4%
20,000-24,999	46	47.8%	39.1%	13.1%	

These figures can be generalized about like this: The bigger the city, the greater the likelihood that expenditures for films will come out of a separate V.E. budget. Two-thirds of the cities of 100,000 or more have separate V.E. budgets. It may warrantably be assumed that the general tendencies shown in these figures will continue and that most cities of 100,000 or more population will have separate V.E. budgets before many more years have passed.

* * *

These tables do not answer completely a question of importance to textbook publishers: What share of V.E. expenditures comes out of appropriations for textbooks? Yet I believe this question can be answered rather flatly. At most, not more than 32 per cent of the reporting systems can be making film expenditures from appropriations set up to cover the purchase of textbooks. In all likelihood the actual percentage is much closer to zero than to 32 per cent.

* * *

Of course no sensible man would attempt to predict that films will never compete directly with textbooks. The day may come when expenditures for films will carve down the amount of money spent on textbooks. But it must be said that any such day is not yet within sight and that it must be a long way off. Nothing but a revolutionary change in present conceptions of the function of visual education could bring that day into the next ten or twenty years. I see no reason to forecast any such revolutionary change.

The persons who now exert the greatest influence on the progress of visual education are the V.E. directors in a small number of very large systems. Almost all of these V.E. directors were visited by the publishers' salesmen. A good many of them were interviewed fully and in detail by members of my own staff. I believe I am qualified to express sound views about their conception of the use of films. With

but a few exceptions, as nearly as I can see, these key men and women are level-headed and sensible in their attitude toward visual education. The more I have studied what they have said during this survey, the more I have felt myself impelled to admire their intellectual integrity and their refusal to become fanatical crusaders.

In this survey the most searching and most penetrating criticisms of the weaknesses and limitations of visual education came from some of these key men and women, who know more about this field than anyone else does. They do not share the crusading optimism of the enthusiasts who look forward eagerly to the push-button era in education. They doubt that any such era will ever occur.

* * *

What they say, in effect, is that films now play and will continue to play but a subordinate role in the public schools. This role will doubtless acquire somewhat greater importance as the years pass; but it shows no signs of ability to take the center of the stage, banishing all other teaching media to the wings.

* * *

SECTION 3. THE RENTAL MARKET

We have reproduced Section 1 as Belknap wrote it, with minor excisions; Section 2 with major excisions. Now in the case of Section 3 we confine ourselves to relatively brief quotations. Our reasons for greater condensation at this point are two: (1) Though Belknap recognizes rental as a legitimate and necessary means of film distribution under certain stated conditions, he confirms the general impression that the rental market considered by itself (rather than in conjunction with a purchase market serving as a business backlog) is unattractive to a new producer. (2) Belknap's summary of difficulties reported by teachers as handicaps to the extensive use of rented films suggests inadequacies of such a nature that we doubt that harping on them here would render a service to audio-visual education. For the present at least we are not in that business. Let each industry or each facet of an industry improve its own operations if need be without outside interference. To continue in Belknap's words:

The preceding section has presented some reasonably acceptable estimates of the size of the public-school purchase market for films.

As has been shown, most of the school systems, even among the 501 largest systems in the country, play little part in the purchase market. Most of the films that they use, and in many systems all of the films, must be obtained by loan or rental. Both in number of systems and in number of schools, the rental market is a wider market than the purchase market and seems certain to remain so for some years to come.

Critics of the rental method of distributing films to schools generally seem to ignore the fact that there is a real need for rental distribution and that this need will continue. The V.E. director in a New England city of 40,000 population has stated the essential point more clearly than anyone else seems to have done.

> We have ten elementary schools and one high school. Even if our elementary schools use a film only once a year, it would cost us about $15 a year to rent that film for them. In three years we would spend as much on renting that film as it would cost us to buy it and have it available for about ten years. So, as far as our budget will permit, we buy films for our elementary schools in preference to renting them. But we have only one high school. The cost of owning a high-school film over the years in which the film remained worth using would be too high. So generally we rent films for the high school.

* * *

As time passes, more and more schools can be expected to start building their own film libraries, regardless of the relative cost of owning and renting. Also it should be expected that more and more schools will club together to buy films for mutual use. In addition, it is probable that more and more schools will begin to contribute to funds for creation of "county libraries." All these developments are now taking place; and their pace will probably accelerate in the next ten years. Yet even then there will still remain a valid need for rental distribution.

No man who is thinking of entering the field of school-film production should permit himself to believe that the present-day shortcomings of the rental method mean that film rental is all wrong and that it should vanish from the picture. For a long time to come, most of the public schools in this country will get their films from lending libraries rather than by purchase from producers. What should be expected in the next five to ten years is not a great increase in the number of systems that buy their films but, rather, a marked increase in the importance of the part played by the lending libraries.

These comments are made with full recognition of the fact that the rental market is not today a happy market. The deficiencies of the service rendered by the lending libraries are well known. Yet it will be well to state them here as they are seen by the people in the school system.

Main Defects of Film Rental

As seen by 193 V.E. directors, the difficulties encountered in renting films are as shown in the following table:

WHAT 193 V.E. DIRECTORS SAY ABOUT DIFFICULTIES ENCOUNTERED IN RENTING FILMS

	City Size					
	100,000 or more	75,000 99,999	50,000 74,999	25,000 49,999	20,000 24,999	Total
Number of V.E. directors reporting	41	18	28	81	25	193
"No difficulties or problems"	4	3	3	10	3	23
Number reporting difficulties	37	15	25	71	22	170
Films not available when desired (cancellations, broken schedules, etc.)	19	8	15	41	14	97
Transportation and delivery unreliable	3	5	6	11	4	29
Booking and scheduling too difficult	5	2	3	13	5	28
Time limit too short	7	1	6	10	2	26
Evaluation before use too difficult or impracticable	7	2	5	8	4	26
Rental costs too high	5	3	2	8	3	21
Not enough suitable films available for rental	5	2	1	9	2	19
Poor condition of films, on arrival	3	3	2	8	1	17
Lack of enough funds for renting films	1	2	3	3	—	9
Lack of sufficient V.E. personnel to handle rented films properly	1	—	1	—	—	2

* * *

Note what is said by the teachers themselves. The teachers were asked, "What difficulties or obstacles now prevent you from making greater use of motion pictures?"

Before looking at what they said, remember that the teachers interviewed by the publishers' salesmen were ones whom superintendents and principals had named as being interested in using films. Here are the chief obstacles that these teachers set down.

WHAT TEACHERS SAY ABOUT DIFFICULTIES ENCOUNTERED IN RENTING FILMS

	Elementary-School Teachers	High-School Teachers
Number reporting	1133	1464
"Can't get films when desired"	365	390
Lack of enough projectors	282	293
Showing facilities inadequate	240	288
Not enough suitable titles available	215	268
Lack of funds for films	153	274

Given complete freedom to say whatever was on their minds in answering this question, 2600 teachers said, much more often than anything else, "I can't get the films I want when I want them." . . . In effect, they say that the biggest single hindrance that keeps them from making more use of films is the fact that the film libraries do not have enough prints per title.

It is often said that the only remedy for this condition is for the schools to have their own films. But this contention seems rather unrealistic at the present time. The money to provide each school system with its own film library is not yet in sight, except in a relatively small number of cities. There is no reason to expect large funds for film purchase to become available to most school systems in the next five to ten years. What might be much more logical to expect would be an effort to apply a simpler and more practical remedy, by increasing the number of prints owned by the film-lending libraries.

* * *

Belknap then presents analyses of the number of prints per title in some of the chief film-lending libraries; the library purchases of prints of films of certain leading producers; and the varying success with which film producers have sold prints of their films to a number of typical libraries.

He ends this section of his report with the following comments:

> The rental market, that is, sales of prints to lending libraries, has never been a very big market in the past and is not now a big market. . . . Even the titles of the most successful producer of school films have not sold uniformly well to lending libraries. . . . In the 1950's, for reasons of sheer necessity and as the result both of increases in the number of film-lending libraries and also of increases in the number of prints stocked by the libraries on the most popular titles, the potential sales to lending libraries should be two to three times as large as they now are.

SECTION 4. HANDICAPS AND OBSTACLES

In this lengthy section of his report Belknap discusses "the factors that now retard the progress of the use of motion pictures in the public schools."

Here Belknap approaches his topic indirectly. Some of the early subtopics in this section, such as the relative preferences of teachers and school officials for general or auditorium versus specific, curriculum, teaching, or classroom films, would appear to the casual reader to be only remotely connected with the announced topic. As the argument proceeds, however, the reader encounters table after table, each followed by a summary of Belknap's views as to the bearing of the data therein presented upon the general subject of the section. Gradually the tables and ensuing interpretations converge more and more obviously and directly upon this basic theme, and the reader at length appreciates the fact that he has been led deliberately along a zigzag path to a goal that could not easily have been approached in a direct line.

Lack of space forbids retracing these devious steps here. At one point in the journey, however, Belknap pauses to develop at length a theme which is pivotal in his report, namely, the handicap to the growth of visual education which inheres in the fact, as Belknap reports it, that there is a serious dearth of satisfactory films.

On this point we prefer to quote Belknap directly:

What's Wrong With the Films?

* * *

First let's note what the V.E. directors say about it.

The chief difficulty encountered in getting enough good films, according to 185 V.E. directors, is "Not enough good films available." The statements that have been grouped under this heading divide into three main groups, as shown below:

Inadequate Range of Choice		
Not enough selection and variety in titles available	9	
Many subject-matter areas not covered in films	25	
Not enough films for elementary grades	5	
Not enough films for middle grades	1	
Not enough films for certain specific subjects	8	
Lack of films for special-day programs	1	
Not enough prints in libraries	5	
		54
General Criticisms of Quality of Films		
Producers do not make good films	6	
Not enough good films are made	22	
Not enough good films are available	24	
		52
Specific Criticisms of Films Available		
Films not planned as teaching aids	18	
Do not fit the curriculum	3	
Do not fit the textbooks	2	
Not suited to grade level	3	
Not simple enough for grades 3 to 6	2	
Viewpoint of films is too adult	1	
Films are too technical	2	
Too much entertainment in films	2	
Too long	1	
Too much material crowded into film	1	
Narration not related to context	1	
Too much advertising	2	
Too difficult to adapt commercial films to school use	1	
		39

* * *

Some thousands of teachers were asked to express their views on this subject. Bear in mind these were teachers whom superintendents cited as the ones most interested in educational films.

* * *

CHIEF DEFECTS OF UNSATISFACTORY MOTION PICTURES AS STATED BY 920 ELEMENTARY-SCHOOL TEACHERS

	Grade Level			
	1-3	4-6	7-8	Total
Number of teachers answering this question	198	489	283	970
"No defects"	8	14	7	29
Number reporting defects	190	475	276	941
Usefulness for Teaching				
Too advanced or too technical for grade level	79	157	63	299
Below grade level	1	6	3	10
Not on grade level	5	23	9	37
Not planned for teaching purposes	7	15	3	25
Does not fit the curriculum or the textbooks	8	34	16	58
Title misleading	1	3	1	5
Does not hold interest	2	10	1	13
Too long for period or for children	2	2	1	5
	105	250	97	452
Times per teacher	.53	.51	.41	
Subject Matter and Content				
Tries to cover too much ground	21	57	33	111
No central theme	4	17	5	26
Too much extraneous material	1	3	5	9
Too much story, too few facts	3	2	1	6
Too mechanical, too little human interest	—	11	5	16
Dramatizations do not follow book	1	1	1	3
Too one-sided, not representative	1	4	3	8
Poor material	—	1	1	2
	31	96	54	181
Times per teacher	.16	.19	.23	
Quality of Script				
Narrative or dialogue poor	9	26	10	45
Narrative or dialogue unconvincing	1	6	3	10
Too much talk, too little action	1	9	5	15
Inaccurate, not authentic	1	1	4	6
Too much propaganda	—	2	3	5
Too emotional and melodramatic	1	1	2	4
Music distracts attention	3	4	5	12
Too fast-paced	10	13	14	37
Too slow-paced	1	4	1	6
Not enough close-ups	1	1	2	4
Not enough maps or drawings animated	—	2	2	4
Organization of material poor	3	16	12	31
	31	85	63	179
Times per teacher	.16	.17	.31	

	Grade Level			
	1-3	4-6	7-8	Total
Quality of Production				
Poor sound	23	47	40	110
Poor photography	14	33	18	65
Poor acting	3	3	9	15
Poor costumes and sets	—	2	—	2
Technically inferior to Hollywood product	1	7	7	15
	41	92	74	207
Times per teacher	.21	.19	.32	
Obsolescence				
"Out of style"	37	93	42	172
Material outmoded	4	11	8	23
	41	104	50	195
Times per teacher	.21	.21	.18	
Advertising				
Excessive advertising	2	7	11	20

The preceding table deserves . . . careful study.

First note that only 920 out of 1347 elementary-school teachers interviewed in this survey answered this question. Examination of the questionnaires of those who did not answer this question seems to disclose the fact that among 1347 elementary-school teachers whom superintendents and principals had named as "being interested in using motion pictures," there were more than 400 who had actually had so little experience with the use of motion pictures that they shied away from this question about their opinions of "unsatisfactory motion pictures." This fact alone is enough to indicate the low position yet attained by motion pictures in elementary schools.

Then note that out of the 920 elementary-school teachers who answered this question, only 29, about 3 per cent, had no defects to criticize.

Next look at the main targets of the negative criticisms:

1. Usefulness for teaching	452 (51%)
2. Quality of production	207 (23%)
3. Obsolescence	195 (22%)
4. Subject matter and content	181 (20%)
5. Quality of script	179 (20%)

Slightly more than half of the elementary-school teachers who mention defects in motion pictures center their attack on "usefulness for teaching," and their primary emphasis falls on "too advanced or too

technical for grade level." In other words, and quite correctly, they are saying that very few films have been produced for elementary-school use with proper attention to grade level. This is a justified and accurate criticism of the existing motion pictures available for school use. The marvel is that only half of these elementary-school teachers attack the teaching usefulness of the films they have used.

Almost a fourth of these elementary-school teachers damn the "quality of production," centering this attack on "poor sound." Part of this attack on poor sound may be, really, a criticism of the maintenance of projectors in their schools.

* * *

A little less than one-fourth of these elementary-school teachers make unfavorable comments about "obsolescence." Against this fact set the equally unquestionable fact that the motion pictures most commonly and most frequently used in the public schools today are from five to twelve years old. Yet recognize the probability that the main reason why these films are used so much is that they are the only ones in their fields—"so there's nothing better to use."

One-fifth of these elementary-school teachers mention defects in the "subject matter and content" of the films they have used. Here they center their attack on one main defect, "tries to cover too much ground."

* * *

One-fifth of these elementary-school teachers made criticisms that are actually attacks on the "quality of the script." Their two chief criticisms in this category were "poor narrative or dialogue" and "too fast-paced," which may be only another way of saying that the film "tries to cover too much ground."

Here, all told, is a bitter summary of dissatisfaction with the motion pictures now available for use in elementary schools.

Now look at the interesting variations, by grade level.

Emphasis on defects in "usefulness for teaching" is greatest among teachers of the primary grades, less in the intermediate grades, least (though still high) among teachers of the upper grades. The reason for these differences is plain. Most of the motion pictures produced for school use have been aimed primarily at the high-school market. Some of these pictures get by fairly well when shown to 7th- and 8th-grade pupils. But there is little film material designed for the intermediate and primary grades.

Emphasis on defects in "subject matter and content" is lightest in the primary grades, stronger in the intermediate grades, strongest

among the teachers of the upper grades. Again, perhaps, a reflection of the tendency toward most unfavorable criticism where motion pictures have been used most widely and for the longest time. Partly, no doubt, a reflection of the fact that 7th- and 8th-grade teachers demand greater concentration and more precise definition in the subject matter covered by a film.

Emphasis on defects in "quality of script" increases swiftly from the primary grades to the upper grades. The 7th- and 8th-grade teachers mention such defects almost twice as often as the primary-grade teachers do, and they are also much more critical of "quality of production." Again, it seems likely, an indication of the general tendency toward sharper criticism on the part of teachers who have had the widest and longest opportunity to use motion pictures.

These few swift comments on the facts summarized in the table do not exhaust the possibilities. Anyone who seriously thinks of tackling the production of films for use in elementary schools will do well to study very carefully that list of errors to avoid. Most of all he will want to note the two comments that are made most often by these elementary-school teachers, "too advanced or too technical for grade level" and "tries to cover too much ground."

Now look at the following table, which summarizes the answers of the high-school teachers.

CHIEF DEFECTS OF UNSATISFACTORY MOTION PICTURES AS STATED BY 1268 HIGH-SCHOOL TEACHERS

	No. Teachers Mentioning
Usefulness For Teaching	
Too technical or too involved for group	132
Vocabulary above grade level	23
Film generally below grade level	44
"Not on grade level"	30
Not planned for teaching purposes	86
Does not fit curriculum or textbooks	101
Title misleading	12
Too long for period time	29
Too short to fill a whole period	6
Does not hold interest	29
	492
Times per teacher	.40
Subject Matter and Content	
Tries to cover too much ground	231
Incomplete, job not finished	7

	No. Teachers Mentioning
No central theme	41
Too much extraneous material dragged in	33
Too much story, too few facts	23
Too mechanical, too little human interest	12
Dramatization does not follow book on which based	10
Too one-sided, not representative	5
"Poor material"	2
	364
Times per teacher	.29
Quality of Script	
Narrative or dialogue poor	44
Narrative or dialogue unconvincing	19
Too much talk, too little action	16
Too much narrative, too little silence	2
Inaccurate, not authentic	30
Too much propaganda	13
Too emotional or melodramatic	7
Musical accompaniment distracting	32
Too fast-paced	49
Too slow-paced	8
Not enough close-ups	21
Not enough maps or diagrams animated	19
Not enough detailed explanation in captions (silents)	6
Organization of material poor	55
Presentation of material poor	4
	325
Times per teacher	.26
Quality of Production	
Poor sound	137
Poor photography	67
Poor acting	66
Poor costumes and sets	18
Technically inferior to Hollywood product	43
	331
Times per teacher	.26
Obsolescence	
"Out of style"	124
Material or procedure outmoded	48
	172
Times per teacher	.14
Advertising	
Excessive advertising	106

* * *

In this table we are examining the statements made by teachers who have had somewhat more than average experience in using motion pictures. We would thus expect to find their comments somewhat more critical than those of the elementary-school teachers. In some of the main types of comments, this expectation proves correct.

	Times mentioned per teacher	
	Elementary	High-School
Usefulness for teaching	.51	.40
Quality of production	.23	.26
Obsolescence	.22	.14
Subject matter and content	.20	.29
Quality of script	.20	.26
Excessive advertising	.02	.08

In all but two main categories of comments, "usefulness for teaching" and "obsolescence," the high-school teachers tend to be distinctly more critical than the elementary-school teachers.

In usefulness for teaching, the lower frequency for high-school teachers comes chiefly from the difference in frequency of one specific type of comment: "Too advanced or too technical or too involved":

	Times per teacher
Elementary-school teachers	.33
High-school teachers	.10

If the comments on "too advanced or too technical or too involved" are omitted, the frequency of other attacks on usefulness for teaching looks like this:

	Times per teacher
Elementary-school teachers	.17
High-school teachers	.29

In other words, the high-school teachers are much less inclined to object that the films are too advanced for their students, and are much more inclined to object that the films are not planned for teaching purposes and do not fit the curriculum or the textbooks.

The high-school teachers center their chief attack on one specific target: "Tries to cover too much ground." This one criticism was made by 20 per cent of the high-school teachers. Only 12 per cent of the elementary-school teachers named this defect.

It is worth noting, too, that 9 per cent of the high-school teachers object to "excessive advertising," whereas only 2 per cent of the elementary-school teachers named this defect. Mainly, of course, this difference is the result of the fact that sponsored films tend to be used more frequently in high schools than in elementary schools. Yet it is significant that even in the high schools there is but little criticism of this kind. Examination of tables presented earlier in this section will disclose that V.E. directors and principals also offer this criticism very seldom. The comments on this subject by V.E. directors interviewed by members of my staff are generally that "the sponsored films are getting much better and the advertising in them is being handled more skillfully than it used to be."

The facts shown in the last table may be summed up by saying that the high-school teachers generally tend to be much more unfavorable than elementary-school teachers in their opinion of motion pictures, except on a few specific points.

But it should not be assumed that all high-school teachers share the same opinions to the same degree. There are some notable differences in the views of the high-school teachers who teach different subjects:

VARIATIONS IN EMPHASIS BY HIGH-SCHOOL TEACHERS ON MAIN CLASSES OF DEFECTS IN UNSATISFACTORY FILMS

	Times mentioned per teacher		
Teachers' Chief Subject	Usefulness for Teaching	Subject Matter and Content	Quality of Script
English and Literature	.14	.20	.11
Social Studies	.20	.15	.19
Science	.29	.47	.22
Skill Subjects	.20	.38	.19

Note in this table the fact that the science teachers make unfavorable comments much more often than do the other high-school teachers, and that the chief target of their attack is "subject matter and content." Anyone who harbors the notion that "science films are the easiest ones to make"—a statement very commonly made by school-film producers—will do well to note thoughtfully the dissatisfaction expressed by the science teachers. The high-school science teachers are, plainly, the least satisfied with the films that are now available to them. Yet the high-school science teachers merely exhibit,

at its worst, a dissatisfaction that extends throughout the ranks of the public-school personnel.

The traditional, hackneyed phrase, "a wealth of good material," appears over and over again in the books and magazine articles about school use of motion pictures. But it has little or no justification, as will be shown in more detail in a later section of this report. And the men and women in the public schools do not generally agree that there is "a wealth of good material" available for them to use. What they talk about is "the lack of enough good films." This lack of enough suitable films is today one of the biggest single obstacles in the path of school use of motion pictures.

At this point the editor is guilty, at the written request of one of his colleagues on the T.F.S. committee, of illogical reporting. Statements of disagreement with Belknap's views or interpretations (as contrasted with straight condensation) logically belong in editorial footnotes, not in the body of the text. Let the colleague speak for himself: "I am a little worried by the failure of this report to point out that classroom films, as far as teaching merit is concerned, have inevitably been the victims of economic circumstances. Producers have not been turning out shotgun films badly correlated with the curriculum because they didn't know any better. They have been forced to aim at the widest possible school market if they were to have any chance whatever of making financial ends meet. As a result, they have produced films which had a little something in them for practically all courses in the school curriculum, from primary grades through college, which were not doing the job that might and theoretically should have been done; and which some of those producers were undoubtedly capable of doing, for a specific course, at a specific grade level, and at a specific point in that course. If you can support this argument, and I feel that you can, I hope you will work it into your editorial comments at an appropriate place—not in a footnote." The editor feels that he can best "support this argument" by thus quoting it in full.

Before returning to the obscurity of 8-point (footnote) type, the editor thinks it worthwhile to mention another and quite unrelated matter that has been brought to his attention. It has been suggested to him that he emphasize a handicap to the use

of motion pictures in schools that is not otherwise alluded to in this digest of the Belknap report and that is barely mentioned in the report itself—teachers' reluctance to manipulate so formidable a contrivance as a sound motion-picture projector when they are novices in its use. Unquestionably a major handicap until far more teachers can be trained in projector operation.

Belknap makes it abundantly clear that any reader who skips tables and confines his reading to briefly stated conclusions at the ends of chapters is no more deserving of respect than a detective-story reader who reads the last chapter first. Lack of space compels us to condone this fault, in fact to force it upon our readers willy-nilly; so we pass on to Belknap's summary at the end of this section, as follows:

The Major Obstacles

The analyses in this section have aimed primarily at identifying the major handicaps and obstacles that now retard the progress of school use of motion pictures. Now we can review these major obstacles and attempt to appraise their probable influence on the market for school motion pictures in the next few years. Necessarily, much of this appraisal will be an expression of personal judgment. But, at least, the judgment is unbiased and is based on months of examination of a large mass of data.

"Lack of Projectors"

The weight to be placed on this obstacle depends chiefly on the point of view of the person examining it. If his definition of enough projectors is a projector in every classroom, he had better accept the evident fact that what he wants is not likely to come to pass for many years, if ever. Among men and women in the public-school systems there is now extremely little demand or desire for a projector in every classroom. If he defines enough projectors as most of the school people now do—a projector in every school, plus a few additional projectors in the schools that want to make the most use of motion pictures—then he may conclude that what he wants is likely to become an actuality in the 501 largest systems in the early or at least middle 1950's, at which time the public-school ownership of motion-picture projectors will probably provide a moderately good market for school films.

* * *

"Lack of Facilities"

As used in the analyses in this section, this term means essentially lack of a room or rooms properly equipped for motion-picture projection. It does not imply a universal demand for equipping every classroom for motion-picture use. Today this obstacle is plainly a serious one. Trying to look into the future, we can assume, I believe, that this obstacle will be overcome within a relatively short time, for the simple reason that increasing ownership of projectors will compel the schools to overcome it.

"Poor Service By Film-Lending Libraries"

As was shown in Section 3 of this report, this means mainly lack of enough prints to meet the demand for the most popular titles.

* * *

It seems reasonable to expect at least a moderately substantial improvement [in this respect] within the next ten years.

* * *

"Inadequate Training of Teachers"

This seems to be the most discouraging of all the obstacles that retard the progress of school use of motion pictures.

Much of what has been said or written on the subject of visual education seems to assume that motion pictures provide the easy road to painless teaching. Perhaps we can see the truth by looking at some of the history of the use of motion pictures by manufacturers. In the middle 1930's producers of motion pictures and slide films succeeded in selling a lot of manufacturers on the idea that films would provide an easy way of solving the difficulties of sales training. Little by little as the years passed some of the manufacturers learned that there was nothing easy about any method of training salesmen, and that regardless of the method or medium used the primary factor was still the teaching ability of the man who conducted the training. Some manufacturers have not yet learned this ABC lesson. But today a lot of manufacturers no longer regard films as anything but one of the many media that will yield good results—if the instructor knows how to teach.

Many schools and many teachers have yet to learn this elementary

lesson.[31] Too often the enthusiasts preach that here at last the easy road has been discovered. Too often teachers accept the assertion that films make teaching easier. The truth is that films do not make teaching easier. On the contrary they impose heavier demands on the time and effort of the teacher. They require not less teaching ability, but more and better teaching ability. They do not shorten the time required for covering a unit of instruction, they lengthen it. They may impart information more firmly and more lastingly, but they do not—at present —save time and effort for the teacher. They are not the final answer—yet—to the constant search for "an easier way to teach."

The extreme enthusiasts argue that if all main portions of all main subjects in the curriculum were embodied in films, the push-button era in education would be achieved. With nothing or virtually nothing to do but look at films, Johnny would learn easily and swiftly and Teacher would have a very easy time. If these enthusiasts are right, their rightness lies so far in the vague and distant future that we cannot pay much attention to it at the present time.

* * *

Meanwhile, if school use of motion pictures is to become much more important than it now is, the school systems and the institutions that train teachers face the task of providing far better training than they have yet supplied in this field. And until they make much more progress than they have yet made in getting down to brass tacks about the way to teach with the films that actually are available, the progress in school use of motion pictures is not likely to be more than moderate.

* * *

"Lack of Funds"

Today this obstacle is a dominant one.... Today lack of funds means little more than lack of enough funds to equip each school with one projector and to provide each school with a relatively small number of prints. The objective in most school systems is seldom more than an average of one showing a week, per class, and often it is not so

[31] Many textbook salesmen have volunteered comments which bear out this observation. They have found a large number of the teachers "most interested in educational films" ready to let the film do all the teaching—ready even to consider the film as a welcome diversion rather than as a teaching opportunity.—COMMENT BY MEMBER OF T.F.S. COMMITTEE.

high as that. Most school projectors are idle except for a few hours each week.

* * *

The funds that seem likely to be available in the early or middle 1950's will come pretty close to defraying the cost of the use of films that the men and women in the public-school systems now regard as desirable. These funds will cover the cost of a moderate expansion in the purchase of films. Probably they will just about double the market for school films by the middle 1950's.[32] But it is very unlikely that they will be big enough to create a boom in the sale of motion-picture prints.

"Lack of Enough Suitable Films"

Here perhaps is the heart of the whole problem. There are not today enough films that command the respect of the teachers. This sad condition cannot be remedied by any one producer. To correct it, hundreds and hundreds of new films will be needed—better films, costing more to produce, with far more accurate understanding of the teaching process.

The influx of newcomers in the field of school-film production in the past year (1946-47) is not likely to alter the situation to any great degree in the near future. . . . Even if all of the newcomers . . . make a real place for themselves by producing films that teachers respect . . . their total output will be only a fragment of the number of good films that are now needed, and some years will elapse before enough good films have been provided to make any substantial contribution to increased use of motion pictures in the public schools.

* * *

"Lack of Interest by Teachers"

As far as I can see, this basic obstacle interlocks closely, perhaps inextricably, with lack of enough good films.

The facts are plain:

1. Longer and wider experience in the use of motion pictures does not increase the teachers' interest in using motion pictures. On the contrary it tends to produce less and less interest.
2. The teachers who have the most desire to use motion pictures tend to be the ones who have had the least opportunity to use

[32] See footnote 25, page 42.—EDITOR

motion pictures. The teachers who have the least interest tend to be those who have made the most use of the films that are now available.[33]

To some degree, greater interest on the part of teachers might be fostered by better teacher training both within the school systems and in the normal schools, colleges, and universities. But this looks like a very faint hope for the next five to ten years. The main part of the remedy, obviously, must come from the production of more and better films for teaching use.

* * *

PART TWO. *The Need for More and Better Films*

SECTION 1. SCHOOL SUBJECTS IN WHICH MOTION PICTURES ARE NOW USED

Again and again in the records of this survey the need for more and better films is stressed by the schools. The degree of emphasis on this need varies from person to person in accord with differences in the conception of the educational function of the motion picture. These differences, in turn, seem to arise mainly from differences in definition of the nature and purpose of education itself.

At the one extreme are those who feel that the main task for the schools is that of making fuller and more skillful use of the "wealth of material" that is already available. In the main those who hold this opinion seem to be those who regard the motion picture as being primarily a means of "enriching the curriculum" and "broadening the student's understanding of the world he lives in."

At the other extreme are those who insist that there are not today more than a few motion pictures that are really worth using in the schools, and that the public-school expenditure for films would be many times larger than it now is if there were only enough films worth using. Those who hold this opinion appear to be those who tend to think of the motion picture as a means of teaching what may be termed "specific curriculum subject matter."

* * *

The one practical way to explore the need for more and better films is to examine the present-day use of motion pictures in the public

[33] For a dissenting interpretation by Arthur Mayer, see pages 104 ff.—EDITOR

schools. And the best way to start is to look at the school subjects in which motion pictures are now being used in the schools.

* * *

Frequency of Use of Motion Pictures

. . . V.E. directors, principals, and teachers were asked to indicate, for each subject, the relative frequency of use of motion pictures—"Use frequently," "Use occasionally," or "Use not at all."

In examining their answers we should not attempt to assign precise values to the words "frequently" and "occasionally." . . . Within the limits of this reservation the data will . . . show the *relative frequency* with which motion pictures are used in the teaching of the various main subjects in the curriculum.

* * *

FILM USAGE BY SUBJECTS AS REPORTED BY V.E. DIRECTORS AND ELEMENTARY-SCHOOL PRINCIPALS

	All Elementary Schools in System (V.E. Directors)		Selected Elementary Schools (Principals)	
	Frequently or Occasionally	Not at All or Negligibly	Frequently or Occasionally	Not at All or Negligibly
Social Studies	76%	24%	89%	11%
Science and Nature Study	74%	26%	82%	18%
Safety and Health	72%	28%	79%	21%
Music	47%	53%	47%	53%
Art	45%	55%	41%	59%
Reading	31%	69%	38%	62%
Arithmetic	6%	94%	7%	93%

* * *

The selected elementary schools, known to be above average in the use of motion pictures, do not differ substantially from the average in their systems on music, art, and arithmetic. They exceed the average primarily in use of motion pictures in social studies, and only moderately in the use of motion pictures in science, safety and health, and reading.

In other words, greater use of motion pictures in elementary schools that make more than average use of motion pictures, in such systems as those visited in this survey, consists primarily of greater use of

motion pictures in social studies. It does not today mean greater use of motion pictures in all main subjects in the curriculum.

* * *

SUBJECTS IN WHICH MOTION PICTURES ARE USED IN ELEMENTARY SCHOOLS

(As stated by 1315 elementary-school teachers said to be "interested in using motion pictures")

		Grade Level			
		1-3	4-6	7-8	Total
Total number of teachers answering this question		303	691	321	1315
Social Studies	Teachers mentioning	275	645	272	1192
	Use frequently	139	358	144	641
	Use occasionally	103	208	95	406
	Do not use	33	79	33	145
	Did not mention	28	46	49	123
Science (and Nature Study)	Teachers mentioning	256	558	197	1011
	Use frequently	105	189	80	374
	Use occasionally	115	268	84	467
	Do not use	36	101	33	170
	Did not mention	47	133	124	304
Language Arts (Chiefly Reading)	Teachers mentioning	230	482	154	866
	Use frequently	32	44	16	92
	Use occasionally	84	155	46	285
	Do not use	114	283	92	489
	Did not mention	73	209	167	449
Health and Safety	Teachers mentioning	43	128	35	206
	Use frequently	10	33	10	53
	Use occasionally	33	93	25	151
	Do not use	—	2	—	2
	Did not mention	260	563	286	1109
Arithmetic	Teachers mentioning	203	421	137	761
	Use frequently	—	2	1	3
	Use occasionally	5	14	7	26
	Do not use	198	405	129	732
	Did not mention	100	270	184	554
Physical Education	Teachers mentioning	1	17	9	27
	Use frequently	—	6	1	7
	Use occasionally	1	11	8	20
	Do not use	—	—	—	—
	Did not mention	302	674	312	1288

		Grade Level			
		1-3	4-6	7-8	Total
Home Economics	Teachers mentioning	—	2	10	12
	Use frequently	—	1	3	4
	Use occasionally	—	1	7	8
	Do not use	—	—	—	—
	Did not mention	303	689	311	1303
Industrial Arts	Teachers mentioning	—	6	12	18
	Use frequently	—	1	3	4
	Use occasionally	—	5	9	14
	Do not use	—	—	—	—
	Did not mention	303	685	309	1297
Arts and Crafts	Teachers mentioning	3	4	2	9
	Use frequently	—	1	1	2
	Use occasionally	3	3	1	7
	Do not use	—	—	—	—
	Did not mention	300	687	319	1306
Guidance	Teachers mentioning	—	3	7	10
	Use frequently	—	1	3	4
	Use occasionally	—	2	4	6
	Do not use	—	—	—	—
	Did not mention	303	688	314	1305
Art	Teachers mentioning	14	46	18	78
	Use frequently	5	8	1	14
	Use occasionally	9	38	17	64
	Do not use	—	—	—	—
	Did not mention	289	645	303	1237
Music	Teachers mentioning	13	65	21	99
	Use frequently	1	16	3	20
	Use occasionally	11	49	18	78
	Do not use	1	—	—	1
	Did not mention	290	626	300	1216
Miscellaneous Other Subjects					
	Teachers mentioning	60	133	41	234
	Use frequently	7	9	10	26
	Use occasionally	18	40	14	72
	Do not use	35	84	17	136
	Did not mention	243	558	280	1081

* * *

In only four fields, social studies, science and nature study, reading, and health and safety, is there any substantial use of motion pictures

by these 1315 elementary-school teachers who are said to be "interested in using motion pictures."[34]

* * *

Principals of elementary schools known to be above average in use of motion pictures stress social studies more than V.E. directors do. Elementary-school teachers selected because they are "interested in motion pictures" put even greater stress on social studies in describing their use of motion pictures.

The further we go toward more extensive use of motion pictures in the elementary schools, the stronger the emphasis on social studies and, relatively, the weaker the emphasis on other subjects, even including science and nature study.

* * *

The only fields in which there is today any substantial use of motion pictures in elementary schools are social studies and science and nature study, with social studies well in the lead. The established market for school films in the elementary schools lies primarily in these two fields. Anyone who produces elementary-school films in any other fields than these two will have to rely on the hope that his films will appeal to teachers who are not now making much use, if any, of films dealing with such subjects.

* * *

[34] One member of the T.F.S. committee suggests that the very small number of elementary-school teachers using motion pictures on subjects outside of the first three or four categories is to be explained almost exclusively by the lack of any considerable number of available films in those areas. In other words, teachers fail to use arithmetic films not because of disapproval of or lack of interest in arithmetic films, but because with rare exceptions, such as *Borrowing in Subtraction*, there just aren't any arithmetic films.—Obviously, neglect of these various areas results in a vicious circle. There are hardly any films on a certain subject, teachers do not demand them because they are unfamiliar with them, and they are not made because teachers do not demand them. The committee member just mentioned summarizes his demurrer thus: "The frequent or occasional use of films is affected so much by the availability of films that almost no really reliable or significant conclusions can be drawn from the figures." To this demurrer, Belknap replies that his sole purpose in presenting the figures in the preceding table was to enable us to differentiate accurately between the elementary-school subjects in which the use of films is already well established and the subjects in which the teachers are not yet accustomed to using films.—EDITOR

GRADE-LEVEL VARIATIONS IN USE OF MOTION PICTURES IN THE THREE SUBJECTS MOST COMMONLY MENTIONED BY ELEMENTARY-SCHOOL TEACHERS SAID TO BE "INTERESTED IN USING MOTION PICTURES"

		Grade Level		
		1-3	4-6	7-8
Total teachers answering this question		303	691	321
Social Studies	Use frequently	46%	52%	45%
	Use occasionally	34%	30%	30%
	Total using	80%	82%	75%
Science and Nature Study	Use frequently	35%	29%	26%
	Use occasionally	38%	39%	26%
	Total using	73%	68%	52%
Language Arts (Chiefly Reading)	Use frequently	11%	6%	5%
	Use occasionally	28%	22%	14%
	Total using	39%	28%	19%

Most of the motion pictures available for school use have been aimed at high-school students. With but a small handful of exceptions, there is little film material that really fits the lower and intermediate grades in the elementary school. Yet when we look at the figures in the table, we see a generally consistent tendency toward diminishing use of motion pictures as grade level rises in the elementary schools. At heart, it seems, this tendency is merely another illustration of a basic fact that was stressed in Part One of this report: Interest in the use of motion pictures and acceptance of the motion pictures now available for school use tend to be least strong among the teachers for whom the most films have been available for the longest time.

Among elementary-school teachers who are "interested in using motion pictures," the least use of motion pictures in the chief subjects is made by the upper-grade teachers who can (in theory at least) use a considerable proportion of the films that are supposed to be suitable for junior high-school use. And the greatest use, paradoxical as it seems, is made by the primary-grade teachers who have extremely little available for use.

Junior High-School Use of Motion Pictures

When we look at the use of motion pictures in junior high schools, we see the beginning of a shift in emphasis away from social studies and toward science.

* * *

SUBJECTS IN WHICH MOTION PICTURES ARE USED IN JUNIOR HIGH SCHOOLS
(As stated by 163 V.E. directors)

	"Used Frequently"	"Used Occasionally"	"Not Used at All"	Not Indicated
English	8	62	44	49
Literature	11	81	34	37
Mathematics	—	38	79	46
Science	123	26	3	11
Social Studies	118	30	2	13
Modern Languages	7	44	67	45
Music	24	73	36	30
Art	13	80	33	37
Physical Education	33	82	19	29
Vocational	50	72	14	27

* * *

At the junior high-school level, science moves into first position, relegating social studies to a close second place. Third and fourth place now are taken by vocational subjects and physical education.

* * *

JUNIOR HIGH-SCHOOL TEACHERS REPORTING FREQUENT USE OF FILMS

	No. teachers	% Using Frequently
English and Literature	81	16%
Modern Languages	16	19%
World History	27	41%
Civics	30	23%
American History	64	39%
Other Social Studies (unidentified)	124	55%
Biology	20	75%
General Science (and "Science")	220	63%
Mathematics	46	2%
Art	19	5%
Music	24	17%
Physical Education	31	26%
Health	33	45%
Industrial Arts	34	24%
Home Economics	34	3%

In effect, these percentages measure the degree to which motion pictures are being used to any appreciable extent, in junior high schools equipped with projectors, by the teachers who are most interested in using motion pictures. Only in three fields, in these junior high schools, is a majority of teachers using motion pictures frequently—biology, general science, and unidentified social studies.

This was the "top of the junior high-school market" in 1945. There is no reason to believe that any notable alteration has taken place since then. The number of projectors in these junior high schools cannot have increased very much since 1945. The funds available for purchase or rental of films for these schools likewise cannot have increased very much. And only a small number of films worth using in these subjects have been issued in the past year and a half.

* * *

The Use of Motion Pictures in Senior High-School Subjects

When we turn to the senior high schools, we come to the segment of the market for which the greatest number of films are available, and, simultaneously, to the part of the market that is best equipped with projectors. Here we might well expect to find the widest and most frequent use of motion pictures.

* * *

SUBJECTS IN WHICH MOTION PICTURES ARE USED IN SENIOR HIGH SCHOOLS
(As stated by 320 senior high-school principals)

	Used Frequently	Used Occasionally	Not Used
World History	23%	48%	29%
American History	36%	48%	16%
International Relations	.3%	—	—
Intercultural Relations	.7%	1%	—
Civics	19%	38%	43%
Geography	24%	33%	43%
Other Social Studies (not further identified)	14%	26%	60%
Biology	54%	34%	12%
Physics	38%	47%	15%
Chemistry	31%	48%	21%
General Science	2%	.7%	—
English	8%	53%	39%
Literature	8%	52%	40%
Modern Languages	9%	44%	47%
Latin	2%	18%	80%
Mathematics	3%	25%	72%
Art	7%	43%	50%
Music	1%	2%	97%
Physical Education	16%	60%	24%
Health	21%	54%	25%
Safety	.3%	1%	—
Commercial Subjects	8%	40%	52%
Home Economics	24%	49%	27%

	Used Frequently	Used Occasionally	Not Used
Industrial Arts	24%	43%	33%
Automotive	.7%	.3%	—
Aircraft Maintenance	3%	1%	—
Vocational Guidance	10%	46%	44%
Agriculture	.7%	1%	—
Other Vocational	10%	13%	77%

* * *

SENIOR HIGH-SCHOOL TEACHERS REPORTING FREQUENT USE OF FILMS

	No. of Teachers	% Using Frequently
English and Literature	200	11%
Modern Languages	75	21%
World History	139	12%
Civics	92	30%
Geography	86	49%
American History	244	26%
Biology	217	42%
Physics	192	23%
Chemistry	157	20%
General Science (and "Science")	340	51%
Mathematics	85	8%
Physical Education	30	27%
Health	56	36%

Use of motion pictures in senior high-school subjects, even by the teachers who are known to be "interested in using motion pictures," is rather thin. In only one subject or combination of subjects does a majority of teachers use motion pictures frequently.

These figures, remember, come from statements by exceptional teachers well above average in their use of motion pictures, in schools that have well above average equipment in projectors. Here in short is a picture of the "cream of the market" in the senior high schools of this country. After thirty years of effort this is as high as we have managed to get, in the very schools that have had the most projectors and for which the largest number of films have been available.

* * *

The following table, with some exceptions (which are starred), is further confirmation of a basic principle that comes into sight again and again: "Greater opportunity, less interest and less use of motion pictures."

* * *

PER CENT OF HIGH-SCHOOL TEACHERS WHO SAY THEY USE MOTION PICTURES "FREQUENTLY" IN THE SUBJECTS THAT THEY TEACH

	Junior High School	Senior High School
English and Literature	16%	11%
Modern Languages	19%	21%*
World History	41%	12%
Civics	23%	30%*
American History	39%	26%
Biology	75%	42%
General Science (and "Science")	63%	51%
Physical Education	26%	27%*
Health	45%	36%
Industrial Arts	24%	44%*
Home Economics	3%	41%*

Now consider the exceptions shown in the table above.

In five fields—modern languages, civics, physical education, industrial arts, and home economics—the use of motion pictures by senior high-school teachers surpasses that of junior high-school teachers. Of these five fields, two show differences big enough to have much practical meaning to a film producer. These two are industrial arts and home economics.

. . . industrial arts and home economics seem to be the chief "new" fields for films aimed at senior high-school students. . . . One of these two fields, industrial arts, owes its recent growth primarily to the motion pictures produced for the U. S. Office of Education. No textbook publisher could hope to parallel, dollar for dollar, the lavish expenditures of this governmental agency. . . . In the field of home economics, however, the senior high-school field is wide open to intelligent competition.

There are, today, but a negligible number of sound motion pictures that are really worth using in senior high-school home-economics classes. Few of the films that are available have been issued by school-film producers. For films to show to her students the home-economics teacher must turn mainly to commercially sponsored films, some of which are interesting, a few of which deal specifically with the subject matter she is trying to teach, and, by and large, none of which she would use if there were only enough real teaching films available. . . .

What Kind of Films Are They Using?

* * *

There are very few sound motion pictures that focus definitely on the subject matter of the curriculum as treated in textbooks.

For example, let's begin with botany, one of the subjects for which there appear to be the most films available. School use of motion pictures on botanical subjects started thirty-two years ago with "The Unfolding of the Flower." Yet today there are only approximately 36 sound motion pictures (16mm) that can be said to deal definitely with any phase of botany that is covered by botany or biology textbooks.

* * *

Or, if you will, consider the somewhat chaotic subject of health. All told there are only about 94 sound motion pictures that deal with any recognizable textbook aspect of the broad field of anatomy, physiology, and health. Of these 94 films, only 28 are generally regarded as suitable for showing to elementary-school pupils. Of these 28, there are only about nine that are commonly used by elementary schools. Yet films are used frequently in teaching health in the elementary schools that make the most use of motion pictures.

* * *

The central fact is simply that there are very few motion pictures that have been designed specifically to fit the curriculum, and that in virtually every subject (even in science subjects) frequent use of motion pictures is possible only by showing films that have little direct relation to the subject.

* * *

Thus to a considerable extent motion pictures are not today being used primarily to teach the subject matter of the curriculum. Rather they are being used to supplement and augment the curriculum.

In order to use motion pictures in this manner, neither the teacher nor the film librarian can afford the luxury of being very critical in appraising the films that are available for use. Standards followed in evaluating the films, especially in evaluating their relation to the curriculum, must be rather tolerant, for the simple reason that strict standards would eliminate a great many films and leave but few.

* * *

The principle followed in almost all grade-level classifications appears to be that the grade level for which a film is suitable is determined mainly by the general nature of the film's subject matter, rather than by its vocabulary, its treatment of its subject, the maturity or

immaturity of its concepts, or its basic interest to pupils of differing ages. There are exceptions, to be sure, but they are merely exceptions.

* * *

The truth about the grade-level suitability of the motion pictures now available for school use can be summed up, of course, in some such fashion as this:

Most of the films were produced, originally, for theatrical showings, with no regard to suitability for showing to pupils of specific age groups.

Of the motion pictures produced definitely for school use, most were naturally aimed at the high-school market, which had the most projectors.

Only a handful of sound motion pictures, thus far, have been produced specifically for use in the primary grades.

Still fewer, if any, have yet been produced specifically for the intermediate grades.

In order to make frequent use of motion pictures, a primary-grade teacher must show to her pupils a number of films that are really "too old for them," and an intermediate-grade teacher must do the same thing, relying mainly on films designed for high-school students and adult audiences.

* * *

SECTION 2. THE MOTION PICTURES THAT TEACHERS LIKE

In the hope of determining the nature of the motion pictures that teachers prefer, the selected teachers interviewed by the publishers' salesmen were asked to answer this question:

"Of the motion pictures you have used, which *five* do you regard as best?"

* * *

The 1045 selected elementary-school teachers who answered this question named a total of 1038 motion pictures and general types of motion pictures. They averaged 3.5 listings per teacher.

As might be expected, the 1269 high-school teachers who answered the question spread their answers more widely than the elementary-school teachers, naming a total of 1710 motion pictures or general types of pictures.

Most of the actual motion-picture titles mentioned by the teachers were mentioned by only one or two teachers apiece. Only 86 titles were named by 1 per cent or more of the elementary-school teachers who answered the question. Only 67 titles were named by 1 per cent or more of the high-school teachers who answered the question. No single motion picture was mentioned by as many as 10 per cent of all the elementary-school teachers, and no single motion picture was mentioned by as many as 7 per cent of all the high-school teachers. . . . Knowing as we do that the core of the body of motion pictures used in the public schools consists of about 300 to 400 films that are used more often than all others, we might expect these teachers to concentrate a sizable share of their "votes" on a relatively small number of films. Instead . . . they disperse their votes widely, over hundreds of films, and only small percentages of them agree in naming the same films. . . . When we get scattered votes from teachers who must represent reasonably well the elementary-school and high-school teachers who have had the most experience with school use of motion pictures . . . we must draw the basic conclusion that in the opinion of these experienced teachers there are no school motion pictures that are outstanding enough to be liked strongly by more than a relatively small number of teachers.

* * *

The "Top Five" for Each Grade Level

A list of five "best-liked" films was prepared for each grade level. It is not deemed wise to identify these films by names and producers for two reasons:

1. These lists were compiled from educators' responses to a questionnaire administered more than two years ago which antedated the film output of certain organizations that have in recent years (or months) been more than ordinarily successful in marketing their product. Consequently the lists might be interpreted as discriminating against those recently produced films with which the teachers had not become acquainted.

2. The possibility (plausible or not, according to the reader's point of view) has been suggested that both producers and users might have a tendency to accept these selections as yardsticks of film desirability and proceed to pattern the style of new productions upon them.

For these reasons the five best-liked films as listed by teachers at each grade level are designated merely by code letters.

It will be noted that of the sixteen films selected as best-liked, one (H) occurs in the lists of three separate levels; three films (A, F, and G) occur in the lists of two separate levels; and the remaining twelve films are apparently of major interest only to the teachers at one level.

The five films named most often as best-liked by 240 primary-grade teachers were:

Code	Year	Times Mentioned
A	1938	61
B	1937	52
C	1937	50
D	1939	31
E	1938	25

The five films named most often as best-liked by 550 intermediate-grade teachers were:

Code	Year	Times Mentioned
F	1939	42
G	1936	37
P	1938	33
A	1938	32
H	1937	30

The five films named most often as best-liked by 245 seventh- and eighth-grade teachers were:

Code	Year	Times Mentioned
F	1939	15
I	1943	15
G	1936	13
H	1937	12
J	1940	12

The five films named most often as best-liked by 1269 high-school teachers were:

Code	Year	Times Mentioned
H	1937	84
K	1932	55
L	——	53
M	1941	51
N	1937	47
O	——	47

It is clear from all these tables that the best-liked films were six or seven years old late in 1945 and were agreed upon by only a small percentage of the teachers interviewed. (A study of the actual titles reveals also that there is a shift in emphasis from films on social studies in the elementary school to films on science in the high school, if so slight an agreement as these tables indicate can be considered to be reliable. Incidentally, in all of these lists of "top fives" there is only one commercially sponsored motion picture.)

* * *

Among the commercially sponsored films there are relatively few that are liked very much by elementary-school teachers. Up to now most sponsors of such films have not paid much attention to the production of films aimed at children in the elementary grades. They have been much more interested in sponsoring films aimed at adolescents, "who will soon be purchasers and voters." Whether, in the near future, they will start trying to influence children of grade-school age is a question that cannot now be answered. . . . In any event, what a school-film producer should note is the plain fact that, as far as the teachers are concerned, the competition from sponsored films (government or commercial) is weakest in the elementary schools, strongest in the high schools.

* * *

Teachers' Liking for "Subject-Matter Films"

It was thought advisable to separate the teachers' selection of 374 best-liked films into subject-matter groups, in order to examine the distribution of teacher interest.

SUBJECT CLASSIFICATION OF THE MOTION PICTURES MOST LIKED BY 1035 ELEMENTARY-SCHOOL TEACHERS

Subject	Number of Titles	Number of Mentions
History (U.S. only)	25	388
Geography	60	861
Other Social Studies	41	506
General Science	11	100
Nature Study	34	713
Literature and Biography	7	53
Music	5	112
Health	2	20

SUBJECT CLASSIFICATION OF MOTION PICTURES MOST LIKED BY 1269 ELEMENTARY-SCHOOL TEACHERS

Subject	Number of Titles	Number of Mentions
Science	71	923
History (almost entirely U.S.)	32	584
Geography	19	362
Other Social Studies	26	329
Health and Anatomy	16	225
Literature and Biography	10	101
Vocational Subjects	7	62
Guidance	4	41
Home Economics	3	40
Physical Education	1	6

While the classifications in these two tables are entirely arbitrary, it is clear that films in the field of social studies are more acceptable than films in the field of science in the elementary school and that the reverse is true in the high school.

A closer examination of the 185 titles (or kinds of films) named as best by one-half of one per cent or more of the elementary-school teachers reveals that there are only twelve of these films that can be classified as covering specific parts of curricular subject matter.

Of these twelve, seven deal primarily with science topics, five with social-studies topics.

Among the 189 titles (or kinds of films) listed as best by one-half of one per cent or more of the high-school teachers, there are 78 films that can be regarded as covering specific aspects of a curriculum subject.

Of the eleven most frequently mentioned, eight relate primarily to science topics, three to social-studies topics. It should be said,

however, that these films seem generally to cover broader units of subject matter than would be implied by the word *topics* in its usual sense.

SECTION 3. WHAT THE SCHOOLS WANT

We pass over lightly the opening pages of this section of the Belknap report.

Questionnaires addressed to V.E. directors, principals, and teachers included this question: "What, in your judgment, are the six new motion pictures that are most urgently needed? Indicate your answer by naming the six subjects or topics with which the pictures should deal." It was the hope of those who formulated the questionnaires that a question of this kind would reveal, if not a large number, at least a valuable nucleus of specific subjects or topics for teaching films that would fill recognized needs and meet a conscious or articulate school demand. For one reason or another, probably for a variety of reasons, this question did not elicit the desired results.

One of our reasons for not stressing the point is that both Mr. Belknap and the T.F.S. committee, in the light of the replies to this question that were actually received, doubt that it was well phrased, and for any failure so to frame it that its meaning would be unmistakable, we are, of course, jointly responsible.

In a word, the question as phrased seems not to have made it sufficiently clear whether the expected answer was an entire area of related subject matter, or a clean-cut, specific, essentially unified subject or topic within a much wider curricular range. What we really wanted and hoped to get was answers like "The Social Life of Ants," but we cannot complain too bitterly because we got answers like "Entomology" or even "Zoology"; for if the question really had been clear, surely more respondents, of whom there were upwards of four thousand, would have given us answers of the former rather than of the latter type.

What we got, then, was not challenging suggestions for films on new topics, but merely an indication of the preferences of teachers (interested in films) and school administrators as to the curricular areas in which new pictures should be made. Belknap points out that with minor exceptions the choice of these

areas reflected relative preferences for films in different curricular fields at various grade levels as summarized in an earlier section of the report. Users of school films, in other words, wanted "more of the same," stressing the social studies, for example, at grade levels where existing social-studies films are most in demand.

We can see this concentration most accurately by converting some of the main figures into ratios.

	Grade Level	Total Suggestions	Average No. of Suggestions per Teacher
All Social Studies	1-3	416	1.7
	4-6	1121	2.4
	7-8	460	1.9
Science and Nature Study	1-3	208	0.8
	4-6	239	0.5
	7-8	98	0.4
Language Arts	1-3	165	0.7
	4-6	191	0.4
	7-8	69	0.3
Health	1-3	119	0.4
	4-6	174	0.4
	7-8	36	0.15
Arithmetic	1-3	39	0.15
	4-6	69	0.15
	7-8	28	0.12

What these figures say is that, in the opinion of the elementary-school teachers who are "interested in using motion pictures," the one big need is new motion pictures for the social studies, especially in the intermediate grades, and that the only other subjects in which they feel much need of new motion pictures are primary science and nature study, and primary language arts (reading and pre-reading). Outside of those areas, the demand among these elementary-school teachers does not seem to be very strong.

What needs the most emphasis, perhaps, is the apparent reason of these teachers for centering their demand on social studies, particularly at the intermediate level. Running through a considerable number of the elementary teachers' replies to this question about the "six new motion pictures most urgently needed" is one consistent thread, the frequent repetition of the comment that "the films now available in these subjects do not fit the grades I teach." This comment is made both about science films and about social-studies films,

but most often about the social-studies films. In other words, what these elementary-school teachers want is not merely more films on social studies but *different* films, prepared to fit the grades they teach. Much of what they say on this score is a blunt denial of the traditional effort to push high-school films down into the elementary school.

* * *

A similar analysis, unfortunately, cannot be made for the high-school teachers. Or, more accurately, a similar analysis of the high-school teachers' replies to the same question about "the six motion pictures most urgently needed" is not worth presenting in this report. The high-school teachers were specialists. In answering this question, they were not free to range all over the curriculum but were confined to the subjects that they teach. Thus the subject classification of their suggestions tells us nothing but the fact that the high-school teachers ask for new motion pictures in the subjects they teach, and almost exactly in proportion to the extent and frequency with which they are now using motion pictures in those subjects.

* * *

Variations in Preference for Five Different Types of Motion Pictures

In considering what the schools want, the next step is to look at the way in which the V.E. directors, principals, and teachers answered what has proved to be one of the most helpful questions in this entire survey: "Of the films you have been using, what *types* of motion pictures are most educationally effective? Indicate answer by numbering the following types, 1, 2, 3, 4, and 5, in order of effectiveness."

The five types of motion pictures were described as follows:

Films whose principal aim is to develop social attitudes and understandings.

Films dealing with specific vocational skills.

Films designed to stimulate interest (motivate) in specific subjects in the curriculum.

Films designed to provide background for understanding of school subjects.

Films designed to teach specific parts or phases of subjects in the curriculum.

For simplicity, in presenting analyses of the replies we shall use the following condensed descriptions: (1) Social attitudes, (2) Vocational

skills, (3) Subject motivation, (4) Background, (5) Specific parts of subjects.

Let's start with the replies of the V.E. directors.

RANKING OF FIVE MAIN TYPES OF MOTION PICTURES BY V.E. DIRECTORS

	1st	2nd	3rd	4th	5th
Social attitudes	36	31	36	31	46
Vocational skills	34	42	35	31	39
Subject motivation	9	40	44	54	30
Background	52	52	37	24	13
Specific parts of subjects	91	33	27	19	11

* * *

The over-all relative ranking of the five types of films by V.E. directors can be appraised most readily by combining the first- and second-place votes, and the fourth- and fifth-place votes, like this:

	1st and 2nd	4th and 5th
Specific parts of subjects	124	30
Background	104	37
Vocational skills	76	70
Social attitudes	67	77
Subject motivation	49	84

Motion pictures dealing with specific parts or phases of a curriculum subject receive first-place ranking from V.E. directors much more often than any other type. In extended interviews by members of my own staff, we found that this relative emphasis on this kind of film is common among V.E. directors. They stress the value of motion pictures that get down to brass tacks about specific topics and really teach the subject matter of the curriculum. They urge the need for more such films. They criticize sharply most of the films of this kind that are now available, damning them as "shotgun films" that try to cover too much ground. If we listened only to the V.E. directors in the larger cities, we should be likely to conclude that the big market today is a market for specific "curriculum subject matter" films.

But when we start exploring the views of principals and teachers, we find a good deal of reason for avoiding any such conclusion as that.

* * *

In the next table, observe the wide gap between the views of the elementary-school principals and the views of the V.E. directors.

RANKING OF FIVE TYPES OF MOTION PICTURES BY 210 ELEMENTARY-SCHOOL PRINCIPALS

	Number of principals assigning each rank				
Main Objective	1st	2nd	3rd	4th	5th
Social attitudes	79	51	37	22	12
Vocational skills	14	13	28	33	73
Subject motivation	23	39	52	44	20
Background	117	64	18	6	4
Specific parts of subject	32	37	44	43	30

	1st and 2nd	4th and 5th
Background	181	10
Social attitudes	130	34
Specific parts of subject	69	73
Subject motivation	62	64
Vocational skills	27	106

The elementary-school principals do not agree with the V.E. directors about the value of films dealing with "specific parts of subjects." They rank such motion pictures only a very poor third. First place, in their opinion, goes to "background" films, by a wide margin, with "social attitudes" films in second place.

Do the elementary-school teachers agree with the elementary-school principals? They do, emphatically, as the next table indicates.

RANKING OF FIVE MAIN TYPES OF MOTION PICTURES BY 1073 ELEMENTARY-SCHOOL TEACHERS SAID TO BE "INTERESTED IN USING MOTION PICTURES"

	Number of teachers assigning each rank				
Main Objective	1st	2nd	3rd	4th	5th
Social attitudes	324	283	192	131	56
Vocational skills	29	50	86	167	445
Subject motivation	91	185	292	222	99
Background	586	297	95	26	22
Specific parts of subjects	108	195	231	236	129

	1st and 2nd	4th and 5th
Background	883	48
Social attitudes	607	187
Specific parts of subjects	303	365
Subject motivation	276	321
Vocational skills	79	612

The elementary-school teachers rank the five types of films in exactly the same order as do the elementary-school principals. . . .

What these elementary-school principals and teachers are saying in these two tables is that they do not have very much desire for motion pictures of the type that the textbook publisher is perhaps best qualified to produce—subject-matter films that actually teach the curriculum subject. They prefer, instead, by a big majority, motion pictures that supplement the subject matter of the curriculum and help the pupil to understand the background of the subject he is studying. Next to background films, they like motion pictures which help to develop the social attitudes that the teachers are trying to foster in their teaching of the social studies—and such films, too, are supplementary to the subject matter of the curriculum rather than integral with the curriculum.

* * *

The best market for school films at all elementary-grade levels lies primarily in the broad field of the social studies and, secondarily and to a much smaller degree, in primary reading and primary nature study. In all these fields what the elementary schools most commonly want is not the kind of picture that the textbook publisher is best equipped to produce but the kinds that he may be least qualified to produce and least interested in producing—background films, story films, dramatizations of literature, dramatizations of history, and social-attitudes films which also are generally most successful when they "tell stories."

* * *

RANKING OF FIVE TYPES OF MOTION PICTURES BY 159 JUNIOR HIGH-SCHOOL PRINCIPALS

	Number of principals assigning each rank				
Main Objective	1st	2nd	3rd	4th	5th
Social attitudes	42	27	34	22	32
Vocational skills	31	17	28	39	42
Subject motivation	31	42	35	34	17
Background	53	46	31	17	14
Specific parts of subject	56	43	23	20	16

	1st and 2nd	4th and 5th
Specific parts of subject	99	36
Background	99	31
Subject motivation	73	51
Social attitudes	69	54
Vocational skills	48	81

RANKING OF FIVE TYPES OF MOTION PICTURES
BY 290 SENIOR HIGH-SCHOOL PRINCIPALS

	Number of principals assigning each rank				
Main Objective	1st	2nd	3rd	4th	5th
Social attitudes	59	52	40	47	54
Vocational skills	68	65	45	32	37
Subject motivation	45	66	82	41	30
Background	27	74	67	51	37
Specific parts of subject	117	61	38	25	22

	1st and 2nd	4th and 5th
Specific parts of subject	178	47
Vocational skills	133	69
Social attitudes	111	101
Subject motivation	111	71
Background	101	88

* * *

SUMMARY OF TYPES OF FILMS RANKED HIGHEST BY TEACHERS
OF VARIOUS HIGH-SCHOOL SUBJECTS

Teachers' Main Subjects	No. of Teachers	Highest Ranking	Next Highest
English and Literature	92	Background	Social attitudes
Modern Languages	36	Background	Social attitudes
World History	72	Social attitudes	Background
Civics	20	Social attitudes	Background
Geography	35	Background	Social attitudes
American History	92	Social attitudes	Background
Other Social Studies	167	Social attitudes	Background
Biology	86	Specific parts	Subject motivation
Physics	42	Specific parts	Subject motivation
Chemistry	39	Specific parts	Subject motivation
General Science (and "Science")	318	Specific parts	Subject motivation
Mathematics	34	Specific parts	Subject motivation
Physical Education	22	Specific parts	Background
Health	12	Specific parts	Social attitudes
Commercial Subjects	31	Vocational skills	Background
Home Economics	62	Vocational skills	Subject motivation
Industrial Arts	70	Vocational skills	Subject motivation or specific parts
Other Vocational Subjects	56	Vocational skills	Specific parts or Subject motivation

The type preferences of the junior high-school principals show a transition from the point of view of the elementary school to that of the senior high school. The junior high-school principals rank all five types of films rather close together, and rank "specific parts of a subject" in a virtual tie with "background," at the top. "Social attitudes" drop down to next-to-lowest rank. "Vocational skills" still stay at the very bottom.

The preferences of the senior high-school principals move still further away from the preferences in elementary school. "Specific parts" climbs to the top.

* * *

. . . There is only a restricted field for motion pictures dealing with "specific parts of a subject" in the preferences of the high-school teachers. This restricted field includes the sciences, mathematics, physical education, and health.

* * *

CHIEF CONSIDERATIONS IN DECIDING WHICH FILMS TO BUY

(As stated by 167 V.E. directors)

Subject Matter	Times Mentioned	
Curriculum correlation	48	
Text correlation	15	
"Nature of subject matter"	27	
"Up-to-dateness"	1	
		91
Teaching Value		
Educational effectiveness	57	
Suitability for study	19	
Suitability for grade level	17	
Vocabulary	4	
"Motivation"	2	
Accuracy and authenticity	21	
Organization of material	4	
		124
Usefulness and Need		
Demand and need for such film	28	
Lack of other films in same field	5	
Range of grade levels at which usable and extent or frequency of use	48	
Lasting value	23	
Length of film (not too long to use)	8	
		112

Production Quality	Times Mentioned	
Technical excellence	25	
Quality of sound	18	
Quality of photography	23	
Quality of narration or dialogue	23	
"Not too much musical background"	2	
"Not too much padding"	1	
		92
Cost (not too high)		20

. . . Note that "wide, general use" (range of grade levels at which usable and extent or frequency of use) ranks in a tie for second place along with "curriculum correlation," and only a little below "educational effectiveness." . . . Obviously, this favors the "background films" and the "social-attitudes films" rather than films dealing with "specific parts of a subject."

* * *

If we start with the premise that the chief contribution that the publishers could make in school-film production would come from their knowledge of subject matter and their understanding of the way to present subject matter to students at a specific grade level, the motion-picture opportunity for the textbook publishers does not look very big.

* * *

PART THREE. *Conclusions and Recommendations*

In earlier drafts, written before the full significance of all the essential facts was perceived, much space was devoted to an attempt to describe in detail a way in which a group of textbook publishers might undertake to coöperate in a film-producing enterprise. The process of boiling down the statement of essential facts about the market and the opportunity has made much of that detail seem unrealistic and imaginative and not worth reading.

The detail included, for instance, attempts to map out budgets for a projected operation. But these budgets in the end have not seemed to be worth presenting, except as futile illustrations of something that must already be obvious to anyone who has examined with an open mind the facts that have been stated in the preceding portions of this report. In the light of those facts, any budget for an operation started at the present time is meaningless. And there is certainly no validity

in attempting to set down now a so-called budget for an operation that might be started five or ten years from now, under economic conditions that may or may not exist at that time. No one is in a position to forecast with reasonable accuracy the production costs likely to be encountered in the 1950's, no matter how much consideration he gives to the obvious fact that any coöperative film-producing enterprise conducted by a group of textbook publishers must be essentially a high-cost operation.

* * *

The Key Conclusions

1. The market for films designed solely for school use is today only a rather small market, with most of the business concentrated among a few customers—a small number of very large school systems in the biggest cities, and a small number of film-lending libraries.

2. This market will probably double in size (but not in total expenditures for films) by sometime in the early 1950's; but the increase will come mainly in the elementary schools. Further growth in the high schools seems likely to be relatively small during the next five to ten years.

3. There is a great lack of enough good films for the schools to use. This lack is commonly interpreted as need, but it does not appear to have crystallized into strong and widespread demand for specific films on specific topics. Such demand as now exists is generally rather vague and ill-defined.

4. Only a relatively small portion of the visible opportunity to produce and sell new motion pictures, in the market now existing and likely to exist in the next few years, appears to center on types of motion pictures that the textbook publishers are most obviously qualified to produce. In most subject areas, especially in elementary schools, the preference of the teachers is dominantly concentrated on background films and social-attitudes films.

5. Much of the present lack of enough good films can be met only by a continuing output of "by-product" films and subsidized films and offers no profitable opportunity for commercial producers of school films.

6. The total opportunity for profitable commercial production of school films is not as yet big enough to provide room for more than a few producers. The day when it will be big enough must lie some years distant.

* * *

What You[35] *Could Contribute to the Production of Films*

Your functions in a coöperative enterprise in film production would have to be pretty well confined to two main activities: (1) providing the operating capital, and (2) rendering advisory service on selection of topics, determination of subject matter, treatment of subject matter, preparation of supplementary material such as teachers' guides, and preparation of sales promotion material.

You would not, of course, attempt to write scripts. The creative task of writing good scripts is one that demands highly specialized ability and a background of practical experience in motion-picture production.

Thus your main contribution to the actual production of the films would have to come from your own specialized knowledge of subject matter and your equally specialized knowledge of the needs and viewpoints of the schools.

At the time when you were reviewing and evaluating a number of the more widely used films now available to the schools, it seemed plain that your contribution to film production could be of great value. Studying and analyzing the evaluation reports turned in by the men and women who reviewed the films, the editors who summarized the evaluations were able to identify a small number of persons who seemed to have much to contribute to the production of good films. A minority . . . showed what looked like an exceptional combination of critical perception and creative resourcefulness. . . . The main point, at that time, was that among your personnel there could readily be found a nucleus, which is all that is needed, of editors and executives whose potential contribution to successful film production was visibly of the highest value; and that among the editors who summarized the evaluations of their fellow-reviewers there were several who demonstrated not merely interest in motion pictures but also a marked talent for intuitive understanding of some of the more important problems of school-film production.

Had we gone no further in our analyses, we could only have said that the value of the contribution that could be made by textbook people was both great and unquestionable.

But at that time we were thinking primarily about "subject-matter films"—the type that we had defined as "films devoted mainly to specific parts of specific curriculum subjects." Later, when it became plain that the desire for such films is confined to a rather small portion

[35] At this point in his report Belknap started addressing his clients directly. From here on, "you" means "you seven publishers."

of the teachers in the public schools and is mainly concentrated among the teachers of a few high-school subjects, I found myself forced to make a complete reappraisal of the results of the review and evaluation of representative films. What emerged from this reappraisal cannot be regarded as conclusive; but it is distinctly disturbing.

Once the evaluations were separated according to the type of film that was being reviewed, it was clear that, for the most part at least, the good jobs had been done on the films that dealt with "specific parts of subjects" rather than on the films that dealt with more general material. Given a motion picture that centered directly on subject matter comparable to textbook subject matter, the textbook editors did a workmanlike job of defining its weaknesses—and, in enough instances, an equally workmanlike job of indicating how a better film might have been produced. But given a film dealing with a broad "background aspect" of a curriculum subject, the kind of film for which there is now the widest market, they generally tended to take refuge in damnatory comments and had little to offer in the form of worthwhile suggestions on "how to produce a better film on this topic." This, in the main, just wasn't their kind of meat.

This sweeping generalization is challenging. Do textbook editors have what is needed for active participation in the creation of "background films"? Or is their qualification for assistance in film production restricted rather narrowly, or at least generally, to the sort of film that most nearly parallels the textbook rather than to the development of the sort of film for which the greatest visible demand now exists, particularly in the elementary schools? On the record, to date, the answer seems to be that the potential contribution of textbook editors is likely to be of the greatest value in the development of films that come closest to textbooks—films dealing with specific parts of specific subjects.

* * *

So we end where we started—with the plain fact that the field in which there can be no question of the value of the potential contribution of textbook men . . . is but a relatively minor part of the whole field of school-film production at the present time.

What Could Your Salesmen Contribute?

Again and again, in the reports of extended interviews with school-film producers and film distributors during this survey, there appears one common denominator. "The publishers would have a great ad-

vantage. They've got what the film industry has lacked, salesmen to do the selling to the schools." This almost instantaneous reaction seems to have been based upon a misconception of the way in which films are now being sold to the school systems.

In our interviews with V.E. directors and other specialists in visual education, we find no trace of this optimistic appraisal of the potential value of the publisher's salesmen. The men and women who really understand present-day practice in the purchase of films make no such comments. Apparently the possibility of making such comments does not even enter their minds.

* * *

Twenty years ago, fifteen years, even only ten years ago, the big selling task was that of selling the schools on the idea that films should be used. . . .

Today, for the most part, motion pictures are not "sold" to schools or to school systems. Rather, motion pictures are *bought* by the schools.[36]

Here and there, of course, there still remains a school system to which the motion-picture idea has to be sold. But such systems are now in the minority, at least in the cities big enough to provide much of a film-purchase market. There is no longer any sizable opportunity to make major sales of groups of films to school systems just starting on the use of motion pictures. The buying today is generally done in piecemeal fashion, one film at a time. In this buying, the control lies chiefly in the hands of the teachers, who view and evaluate the films that are presented to them by the V.E. director and decide whether or not they wish to recommend purchase.

* * *

Sum up the essential facts like this:

1. Films are now bought one at a time after previewing and evaluation, which generally requires at least some weeks.
2. The final decision is generally based on the opinion of teachers.
3. Even when the decision is made by one person, the V.E. director or the head of a lending library, the film is bought, not sold.

[36] Belknap here, it seems to me, has oversimplified his conclusion. If we followed his reasoning, we should conclude that few things are sold, that most things—shirts, shoes, automobiles, insurance, food—are bought, not sold. We know that in all these fields salesmanship, advertising, and merchandizing are vital forces, and I suspect the same applies to educational films.—COMMENT BY MEMBER OF T.F.S. COMMITTEE

4. A common practice of major producers of school films today is to ship a trial print to the chief libraries and to the V.E. directors of the larger school systems, and then let them decide whether or not to buy it.
5. If a system or library decides to buy the film, only one print is ordinarily purchased at the start. The purchase of additional prints will wait until the requests from teachers justify further expenditure. Rarely do such requests become sufficiently frequent within the first year of use of the first print.

Under these conditions there is little place for personal salesmanship. Films are bought rather than sold; and they are bought one at a time.

* * *

Here Belknap emphasizes what he regards as the wastefulness and the futility of any attempt on the part of a schoolbook publisher to use his sales force in the selling of films unless the latter are closely articulated with specific books on his own list.[37]

Today the one practicable way to market prints of motion pictures in the school-purchase market and in the lending-library market is simply to ship a print to every likely purchaser and wait to see what happens. The primary cost of marketing, therefore, must come from the cost of providing enough trial prints to cover the main market quickly, plus the cost of shipment to and from the potential purchasers, plus the cost of the necessary printed promotional material.

There is one worthwhile contribution that your salesmen could make. They could do field research work for a film-producing enter-

[37] It is the opinion of a majority of the T.F.S. committee that considerations quite unrelated to the way in which films are bought render such a diversion of bookmen from their customary activities inadvisable. Salesmen are judged by their success in producing "volume." Textbooks are sold in quantities; films, for the most part, as individual items. Inevitably a salesman having to do double duty, *i.e.*, required to sell films *not related to his book offerings*, would neglect the smaller items, the sales of individual films, in favor of such larger items as textbook adoptions in the larger school units; yet it has seemed to our group that any topic or idea sufficiently important to warrant its presentation in motion-picture form merited treatment in *any* adequate textbook—and therefore that the film-geared-to-the-book idea was essentially fallacious. Since our sales forces were thus of questionable value except for the promotion of films packaged as it were with our books, and since it soon became evident that our primary interest was not in films so packaged, it was virtually agreed by the time this investigation had got well under way that in the event that we should actually enter the motion-picture field an entirely different selling staff or staffs would have to be employed. This observation, of course, does not detract from Belknap's argument here, but it does amount to a confession that some of our earlier thinking was not wholly realistic.—Editor

prise. . . . But the cost of this diversion of activity . . . might be heavy. . . .

What Could You Contribute to the Production of Supplementary Material?

During this survey much has been said about the possibility that you could produce better "supplementary material"—teachers' guides, student guides, and tests—than has yet been turned out either by commercial sponsors or by producers of school films.

It is likely that you could and would—for the types of films that you would probably be most interested in producing. And perhaps your skill in producing this supplementary material might create wider use than now exists for such material as this. Relatively few teachers now use it. Most of the main film-lending libraries have ceased supplying it, after having learned that it is seldom used. . . . There is today little indication that the existence or nonexistence of such supplementary material has played a measurable part in determining the sales of prints. The practical value of your ability to produce better guides and tests to accompany motion pictures is therefore questionable. The most that can be said is that better supplementary material might, in time, alter the present lack of interest in such material.

* * *

After some further comments about our qualifications or disqualifications for participation in film production, Belknap ends by stating his final recommendations. We cannot well publish these recommendations in detail. But perhaps we can summarize them so as to indicate their general nature.

In effect, as we have said earlier in this booklet, he gave us neither a red light nor a green light, but a caution signal. He advocated deferment until a time when a wider market may offer better opportunity. He warned us rather bluntly against undue optimism about our chances for successful coöperation in producing school films. But he did not advise us to stay out of the film business forever.

There, for the moment, it stands. Our own present conclusions are indicated in the last few pages of this booklet.

APPENDIX NO. 1

The "Stumbling Blocks" in Elementary School and High School Subjects

We are not making the voluminous data summarized in this long Appendix generally available. Doubtless, however, our readers will be interested in small samples of this information. We have, therefore, selected for presentation here the following items all of which have a direct bearing upon the choice of subjects for pictures actually made as a part of the experiment reported on pages 21-26.

Elementary-School Arithmetic

Total number of mentions of stumbling blocks in this subject		1925
Each of the following items was reported by more than 50 teachers:		
Multiplication facts		56
Long division		166
Borrowing in subtraction		92
Fractions (general and miscellaneous)		104
Division of fractions		61
Division of decimals		55
Number combinations		70
Problem solving (oral)		135

Elementary Social Studies

Total number of mentions of stumbling blocks in this subject		1845
Each of the following items was reported by more than 25 teachers:		
Inadequacy of social-studies vocabulary		58
Inability to visualize how people live in other lands		26
Lack of time sense		49
"The textbook is too difficult"		29
"Teaching map study is difficult"		68
The seasons		27
[And note the following items related to aspects of The Seasons film:]		
Movements of the earth	12	
Rotation of the earth	15	
Revolution of the earth	11	
Day and night	16	
Winds		27
Place geography		25
Latitude and longitude		62

HIGH-SCHOOL BIOLOGY

Total number of mentions of stumbling blocks in this subject	645
Each of the following items was reported by 20 or more teachers:	
Osmosis	20
Photosynthesis	30
Evolution (general)	25
Mitosis	24
Heredity (general)	44
Laws of heredity	25
Respiration and circulation	20

(*End of digest of Belknap report*)

4

Arthur Mayer Disagrees on One Point

AT A MEETING of the T.F.S. committee in October 1947 Arthur Mayer responded to a request to state to the group his impressions as to the qualifications of textbook publishers to work effectively with professional motion-picture producers in the making of teaching films.

Mr. Mayer, while strongly endorsing the Belknap report in most respects, demurred on one point. Let him speak for himself:

> Belknap not only proves convincingly that in the present stage of the market an educational-film project [conducted coöperatively by you seven publishers] will lose money. He also seeks to establish that you textbook publishers are the wrong people to lose that money. He protects your pocketbooks while he kicks you in the pants! "What the elementary schools commonly want," he says, "is not the kind of picture that the textbook publisher is best equipped to produce, but the kind that he may be *least qualified* to produce." Obviously, the assumption on which you and I met and joined forces, by which we thought of films in terms of textbook subject matter and in terms of the problems that textbook authors and editors constantly face, was, if Belknap is correct, fallacious. Our theory that we could identify good topics for motion pictures by identifying the stumbling blocks that teachers most commonly encounter in each subject in their curriculum was naïve. Our confidence that textbook publishers had unusual qualifications for active participation in educational film projects was as gratuitous as it was unfounded.

* * *

Carroll condemns us all to the hoosegow solely on his interpretation of the answers to one question, "What types of motion pictures are most educationally effective?" He lists five types: films whose principal aim is to develop social attitudes, films dealing with specific vocational skills, films designed to stimulate interest in specific subjects in the curriculum, films designed to provide background for understanding of school subjects, and films designed to teach specific parts of subjects in the curriculum. . . . Surely it is not presumptuous to assume that some confusion might well arise in the minds of the interrogated in seeking to distinguish between them. The majority of primary-, intermediate-, and upper-grade teachers, in answering the question, agree that background films are the most educationally effective, followed by social-attitude films, with films dealing with the specific parts of the curriculum a weak third or even fourth. To avoid undue controversy, let us assume that all of your correspondents (not to mention ourselves) are in complete accord as to where, for instance, background films fade out and social-attitude films fade in. Even this whopping assumption is insufficient to establish fully your inadequacy for film production. For Belknap proceeds to insist that in their replies these teachers are not really trying to evaluate the educational effectiveness of the pictures they use but are actually telling us frankly what type of motion picture they themselves prefer to use. . . .

The accuracy of this assumption is so vital to our purposes that I tried a baby questionnaire of my own, asking a dozen people what they would mean by their response to this question. They were people of reasonable intelligence—not motion-picture exhibitors—and practically all reacted as I did, that on the basis of the educational films that they had seen, they would have no recourse save to place background films above specific subjects in effectiveness. This, however, would not for one moment indicate that we all preferred background pictures to curriculum pictures as a method of instruction. On the contrary, it would serve only to convey our disappointment with the curriculum pictures produced to date—a disappointment which is all the more poignant in my case because of my desire for more and better pictures of this kind and my faith in their inherent teaching possibilities. Indeed, this is a point very effectively emphasized by Belknap himself. Time after time in the report he tells us that the acceptance and enthusiasm for pictures is least strong among the teachers for whom most films have been available for the longest time. This is not necessarily discouraging to the true believer. It is only one more indication of the inadequacy of the current films and the necessity for getting

better ones—if not from textbook publishers, from some other source.

But even if you reject my interpretation of these answers from the lower- and intermediate-grade teachers and school superintendents as arising from my ignorance of educational thought processes or too much satisfaction with my own, it should be pointed out that the V.E. directors, the junior high-school principals, and the high-school teachers answering the same question completely dissent. Ninety-one V.E. directors, for example, rate specific parts of the subject first, only 52 giving top place to background. In extended interviews by members of the Belknap staff, it is reported that the V.E. directors stress "the value of motion pictures that get down to brass tacks about specific topics and *really teach the subject matter of the curriculum.*" They urge "the need for more such films and they criticize sharply most of the films of the kind that are now available, damning them as shotgun films that try to cover too much ground."

Also, continuing under protest to accept the Belknap interpretation, it is impressive to observe how the approval of specific subjects increases in direct proportion to the increased use of films. Among primary-grade teachers, curriculum films barely escape last place. Elementary-school teachers raise them to the third position. Intermediate-grade teachers give them a slightly more favorable vote, and among upper-grade teachers they make an even better showing, although they are still in third place. Junior high-school principals, however, advance them to first place. Three hundred fifty-five out of 514 high-school teachers agree. As Belknap points out, this preference for specific parts of a subject is confined primarily in the high schools to the teachers of sciences, mathematics, physical education, and health. None the less, explain it as you may, it exists among the majority of high-school teachers, primarily among those who are the chief users of films. Specific subjects are not favored by high-school teachers in English, modern languages, and civics, but this may merely represent their dissatisfaction with the curriculum pictures produced in these fields to date.

There is ample evidence throughout the report that this dissatisfaction with existing films is based at least to a substantial degree on their failure to correlate closely with the curriculum. For instance, out of 920 elementary-school teachers asked as to the chief defects of unsatisfactory motion pictures, 51 per cent criticize their usefulness for teaching, making such comments as "do not fit curriculum or the textbook," "not planned for teaching purposes," "too advanced or technical for the grade level," "below grade level," etc. As Belknap

himself interprets these comments, teachers are saying that very few films have been produced for elementary schools with proper attention to grade level. Personally, I think most of them are trying to say even more: that they need and want and are not getting textbook films which take full advantage of the possibilities inherent in the movie medium to clarify and illuminate what children in a specific grade are learning about a specific subject.

Confirming this conclusion, out of 492 high-school teachers who criticize the teaching usefulness of films, 132 complain that they are "too technical or involved for the group." But the next largest number, 101, specifically complain that they "do not fit curriculum or textbooks." Five hundred sixty-two school principals give the reasons why teachers are not interested in visual education. The largest group, 160, say "teachers don't know how to use films for teaching." But 102, the second largest number, complain that "films available don't fit the curriculum."

In stating the chief considerations for deciding which films to buy, out of 167 V.E. directors, 57 mention educational effectiveness; 48, the second largest number, say curriculum correlation. Further emphasizing the great desire for such curriculum-harnessed films among high-school teachers, "among 180 titles listed as best by one-half of one per cent of the school teachers, 78 can," according to Belknap, "warrantedly be regarded as covering specific parts or phases of a specific subject." On the other hand, it is true that among 185 titles named as best by one-half of one per cent of the elementary-school teachers, only twelve can be classified as covering curricular parts of a specific subject. Bear in mind, however, that this low figure represents seven per cent of the titles, far above the average curriculum pictures now available to elementary schools.

Indeed, when primary- or elementary-school teachers vote unfavorably concerning specific curriculum films, they are speaking, to be frank, out of the depths of complete ignorance. To all intents and purposes they have seen no such pictures, for there are no such pictures available for their grades. Physical geography, Belknap tells us, is one of the subjects for which films are most commonly used in elementary schools. There are about thirty pictures that concentrate on aspects of the subjects treated in the textbooks. Only four of these are generally rated as suitable for use in elementary schools. Of the ninety-four sound motion pictures that deal with any recognizable textbook aspect of the broad field of anatomy, physiology, and health, only nine are commonly used by elementary schools. There are just

ten fairly good pictures that deal definitely with the subject of conservation of the soil. Only one of these is rated suitable for showing to elementary-school pupils, yet motion pictures are widely used to teach conservation in the elementary schools. The number of pictures dealing specifically and primarily with the subject matter of any one subject in the curriculum is so small that as a method of procedure teachers must reach out for films that in any way remotely supply material bearing on the subject. As an indication of how far afield they must go, among the pictures recommended by the film-lending library of a major university for teaching history is a war documentary about our Ashcan Fleet; for teaching English is a superannuated short called *Teddy, the Rough Rider.* The paucity of pictures leads to almost criminal tolerance in defining grade levels. One important film library, somewhat stricter than most libraries, lists 119 titles as suitable for all grades from primary to junior high school; 117 suitable from intermediate to college; 441 suitable from junior high through college.

Obviously, such hit-or-miss methods of teaching by film cannot possibly give satisfactory results. Unless I have misinterpreted the answers to questionnaire after questionnaire, there is a need for pictures designed specifically for children of a given grade and closely correlated to the curriculum, the sort of pictures which textbook publishers are best qualified to help to produce. This need is recognized by the educators best acquainted with the situation, such as the V.E. directors and the high-school principals and science teachers. It is recognized by school superintendents and lower-grade teachers almost in direct proportion to their use of films and their acquaintance with this type. It is only disparaged where it is practically unknown. Why, under these circumstances, do the schools continue to use pictures on so broad and indiscriminate a basis? Because, as a number of V.E. directors explain it to Belknap, "We haven't enough money to buy all the films we want, so we put our money into films that can be used by a number of teachers and for a number of purposes rather than for films that can be used only once or only in some one class or some one subject." As Belknap says so well, "the frequent use of films in the schools does not reflect their availability but the determination, imagination, resourcefulness, and skill with which the schools keep on trying to use a mass of films which generally have but vague or partial relationship to the curriculum and the age of the student."

* * *

. . . I am firmly convinced that if teaching films are finally to emerge from their prolonged infancy, they must be made by men well-versed

in picture making, working in the closest coöperation with other men who have been and are closely involved in the teaching process. There are various groups available . . . eminent academic authorities, principals, superintendents, teachers, V.E. experts. Speaking of them as groups rather than as individuals, I know of none that offers the specialized knowledge of subject matter, of competent available authors, and of the needs and viewpoints of schools, and that has the capacity to corral the authors and correlate films with those needs and viewpoints which you enjoy.

5

Evaluation Form for Film Appraisal

Our readers may be interested in, indeed may find useful, the motion-picture evaluation form that was devised by Mr. Belknap with some assistance from the T.F.S. committee, and that was then used by the publishers' editorial staffs in an effort to appraise a number of the most widely used existing films.

To save space we shall telescope this document by omitting the liberal space allowed in the actual form itself for writing in the impressions and suggestions of the reviewer.

The Teaching Films Survey Evaluation Form

Name of Film .....

Name of Evaluator .....

1. *Utilization.* Where does this film fit into the curriculum?

	Grade or Grades	Subject or Subjects	Unit or Units
Best Uses			
	.....	.....	.....
	.....	.....	.....
	.....	.....	.....
	.....	.....	.....
	.....	.....	.....
Other Uses			
	.....	.....	.....
	.....	.....	.....

....

....

....

2. *Correlation to Curriculum.* a. How well, in your opinion, does this film fit into the curriculum at the point or points indicated by Best Use or Best Uses, in your answer to Question 1?

   ☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Very Poor

   b. What specific weaknesses, if any, does it have in this respect?

3. *Objective.* a. Is the teaching objective of this film sufficiently specific and clean-cut so that it can be clearly stated in words?

   ☐ Yes ☐ No ☐ Uncertain

   b. If your answer was "Yes," state below what you believe the objective to be.

   c. If your answer was "No" or "Uncertain," state below your reasons for that answer.

4. *Function.* a. For its Best Use or Best Uses, as indicated in your answer to Question 1, what main functions or purposes does the film serve? (Check only *one* function as Chief. Check any or all or none of the other functions as Secondary, in accordance with your own judgment.)

	Chief Function	Secondary Function
To teach a specific part or phase of the subject	☐	☐
To stimulate or increase interest in the subject	☐	☐
To provide background for understanding the subject	☐	☐
To teach or develop a specific vocational skill	☐	☐
To develop social attitudes and understandings	☐	☐
Other (describe)	☐	☐

   b. For its Best Use or Best Uses, and its Chief Function, as indicated above, when is the best time for the teacher to use this film?

   ☐ At the beginning of unit or units specified for Best Use or Best Uses, under Question 1.

   ☐ During study of unit or units. ☐ As summary of unit or units. Why?

5. *Scope of Content.* a. Which *one* of the following statements expresses most closely your opinion of the scope of the content of this film?

☐ It covers just about the right amount of ground, for its purpose.

☐ It covers too much ground.

☐ It covers too little ground.

b. For its Best Use or Best Uses, and for its Chief Function, as indicated in your answers to Questions 1 and 4, what changes in the scope of the content, if any, would you suggest? (State your reasons for each change that you suggest.)

6. *Selection of Detail.* a. For its Best Use or Best Uses, and for its Chief Function, does this film cover the right details of its subject matter?

☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Very Poor

b. What changes, if any, would make this film more effective in this respect?

c. Why do you feel that these changes should be made?

7. *Pace:* a. Which *one* of the following statements expresses most closely your opinion of the pace and speed at which the content of the film is presented?

☐ Pace and speed of treatment are just about right, for comprehension by students of the maturity level indicated by Best Use, or Best Uses, in your answer to Question 1.

☐ Pace and speed of treatment are too rapid for adequate comprehension by such students.

☐ Pace and speed of treatment are too slow.

b. What changes, if any, would improve the film in this respect?

8. *Accuracy and Authenticity:* a. How do you rate this film on its accuracy and authenticity?

☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Very Poor

b. What changes, if any, would improve it in this respect?

9. *Correlation of Visual and Auditory Treatments.* a. How do you rate this film on its correlation and integration of what is heard and what is seen? Are the words heard by the students related closely and effectively to what is being seen on the screen?

☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Very Poor

b. What changes, if any, would improve the film in this respect?

10. *Appropriateness for Grade Level.* How do you rate this film on its suitability for students of the maturity level indicated for Best Use or Best Uses, in your answer to Question 1?

a. Vocabulary: ☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Very Poor

b. Simplicity or complexity of treatment:

☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Very Poor

c. Nature of main concepts:

☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Very Poor

d. What changes, if any, would improve it in this respect?

11. *Pedagogical Soundness.* a. How do you rate this film on conformance to basic principles of effective teaching?

☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Very Poor

b. What portion of the film is best in this respect?
c. What portion of the film is weakest in this respect?
d. What changes, if any, would improve the film in this respect?

12. *Interest.* a. How do you rate this film on its ability to interest students at the grade level or grade levels indicated for Best Use or Best Uses, in your answer to Question 1?

☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Very Poor

Why?

b. What changes, if any, would improve it in this respect?

13. *Emotional Effects.* a. How do you rate this film on its use of emotional appeals? Will the emotional reactions of students be in accord with proper educational standards and objectives?

☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Very Poor

Why?

b. What changes, if any, would improve it in this respect?

14. *Exploitation of Medium.* To be worth using, a motion picture should do something that cannot be done, or cannot be done so well, by other and less expensive media. For example, does the use of motion justify itself, or could the same ground be covered with equal effectiveness by printed pictures, or by a printed text, by a silent motion picture, or by still pictures in a film strip, etc. How do you rate this film, in this respect?

☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Very Poor

15. *Other Comments.* What other comments do you wish to make on this film? (Attach as many supplementary sheets as necessary, to give your comments in full detail.)

16. *Planning a Better Film.* Assuming that you had a free hand in planning the objective, subject matter, and point of view of a film on this same subject, what would you do to plan a better and more effective film than this one? (Attach as many supplementary sheets as necessary, to give your suggestions in full detail.)

6

What Are Our Plans?

WHAT WE have been reporting for your benefit amounts to a research project—educational research and business analysis so mutually interrelated as to be completely fused. Any practical educator, to say nothing of any sensible businessman, insists that research is futile if it is mere busywork. It must lead somewhere, must be capable of being applied, if it is worthwhile. Where, then, has this piece of research led us?

Any effort to answer this question for all seven participating publishers would be out of place, for up to this date (March 1948) the seven publishers have not yet met to decide formally and finally what to do or not to do as a group. Our initial attitudes when this project was undertaken ranged from eager hope that actual production of teaching films might be found feasible, to a somewhat skeptical desire to keep abreast of any important development in the field of teaching materials however remotely related to one's own immediate work. It will probably be best, therefore, for this epilogue to be interpreted merely as a frank expression of the viewpoint of the committee member initially responsible for the preparation of copy for this brochure—a statement of policy, however, that will be understood to have been circulated among all the publishers of the group, who would surely have suppressed it if there were anything in it that ran seriously counter to their own convictions.

Certainly no one can see in the data that have been reported any justification for early or immediate joint activity. As for future

joint activity, say in the early fifties or mid-fifties, that is possible but not probable.

Immediate independent activity by one or more members of the group, in the sense of commercial production of teaching films either related or unrelated to one's publications, appears unlikely but by no means impossible. A few months ago any one of us would have considered independent action extremely unlikely, but the rumored success of a publishing house outside our group in the marketing of films directly related to certain of its books suggests the feasibility of such an undertaking under certain highly specific conditions that may or may not hold with any one of us seven.

As for individual action a few years hence, that is anybody's guess. The answer will depend not only upon commercial feasibility, but to a great extent upon the personal predilections of the publisher involved—his like or dislike for branching out into new lines, the availability of specially qualified personnel, the extent to which new activities on his part may be limited by the exacting requirements of prior publishing commitments, the attitude of his sales force toward diversification of endeavor.

Amid all these uncertainties, except for the certainty that no immediate joint action is contemplated, just one point seems incontrovertible: if, either collectively or individually, now or some years hence, we do *not* produce teaching films, we shall not be derelict in our duty. We are book or magazine publishers. Books and magazines are materials of instruction; so are slide films and motion pictures—and skeletons and dissectible manikins and innumerable other things that teach. Motion-picture producers are not subject to censure for failure to publish schoolbooks or school magazines. Publishers of schoolbooks or of school magazines are entirely at liberty to engage in motion-picture production, but they are not traitors to education if after carefully surveying the field they decide that it is not for them.

If the several members of the T.F.S. group who were keen for early action find the outcome of this inquiry disappointing, those who approached the question in a spirit of pure inquiry or, if you prefer, competitive watchfulness, find their modest investments of time and money amply rewarded. Not only the Belknap

survey, but our minor supplementary inquiries, our brief initiation into picture making, and what we have heard about recent ventures of other publishers all indicate that teaching films are an important type of instructional material and that textbook publishers, if they are wise, will keep themselves well informed as to new developments in all aspects of audio-visual education. Our inquiry will have to be a continuing one if its initial objective is to be attained. Although publication of this brochure exhausts our appropriation for joint investigation, it can be assumed that this parent investigation will be survived by continuing research carried on independently by most or all of the seven participants in the present study. By whom and toward what end? No one knows.

INFORMATION ABOUT the films described on pages 21-26 may be obtained from any of the following sources:

HARCOURT, BRACE AND COMPANY	383 MADISON AVENUE, NEW YORK 17, NEW YORK
HARPER & BROTHERS	49 EAST 33 STREET, NEW YORK 16, NEW YORK
HENRY HOLT AND COMPANY	257 FOURTH AVENUE, NEW YORK 10, NEW YORK
HOUGHTON MIFFLIN COMPANY	2 PARK STREET, BOSTON 7, MASSACHUSETTS
THE MACMILLAN COMPANY	60 FIFTH AVENUE, NEW YORK 11, NEW YORK
SCHOLASTIC MAGAZINES	220 EAST 42 STREET, NEW YORK 17, NEW YORK
SCOTT, FORESMAN AND COMPANY	433 EAST ERIE STREET, CHICAGO 11, ILLINOIS

Preview prints are available from Teaching Film Custodians, Inc., 25 W. 43rd Street, New York 18, N. Y., for the examination of curriculum committees or other administrative officials responsible for making selections of new films for educational-film libraries. Films which are licensed for one, three, or ten years remain in the custody of the school or film library for the duration of the license period for unlimited and unrestricted exhibition. Replacement footage to repair damaged portions of any of the films may be ordered from Teaching Film Custodians at any time during the license period at a cost of five cents per foot.

License fees are as follows:

OSMOSIS:

$ 40.00 for one year
60.00 for three years
80.00 for ten years

BORROWING IN SUBTRACTION:

$ 20.00 for one year
30.00 for three years
40.00 for ten years

THE SEASONS:

Black and white

$ 40.00 for one year
60.00 for three years
80.00 for ten years

Color

150.00 for three years
200.00 for ten years
(not available for one-year license)